

Entered according to Act of Parliament of Canada in the year one thousand nine hundred and ten, by the Students of Macdonald College, Ste. Anne de Bellevue, P. Q., in the office of the Minister of Agriculture.

CONTENTS

Page.

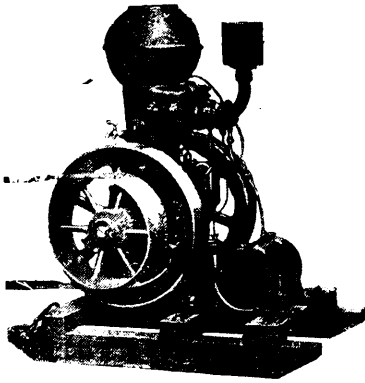
FRONTISPIECE—Retiring Magazine Board	
A Trip to the West Indies, by E. F. Shepherd, Agr. '22.....	71
The Nova Scotia Agricultural College, by Prof. M. Cummings.....	75
Technical Agriculturists Organizing	78
From Swords to Plowshares, by C. Eric Boulden, B.S.A.	80
EDITORIAL	82
AGRICULTURE:	
Recording Pure-Bred Sheep, by A. E. MacLaurin, B.S.A.	86
The Value of Test Work, by J. Bruce Ness, Agr. '22.....	88
The Improvement of Cereal Crops, by Prof. R. Summerby.....	90
The Importance of Forage Crops, by E. A. Lods, B.S.A.	93
Experimental Stations Doing Good Work, by M. B. Davis, B.S.A.	95
SCHOOL FOR TEACHERS:	
Social & Civic Development through the School, by Dr. H. D. Brunt	99
The Teacher's Opportunity, by Campbell Amaron	102
SCHOOL OF HOUSEHOLD SCIENCE:	
The Home and Labour Problems, by Miss A. E. Hill	103
Experiences of a Macdonald Household Science Graduate on the Siberian Front, by Grace McOuat, Sen. Sci. '20	106
FACULTY ITEMS	110
ALUMNI:	
Agricultural Undergraduates	112
Teachers	113
Household Science	113
MACDONALD COLLEGE AGRICULTURAL ALUMNI ASSOCIATION	114
COLLEGE LIFE	116
ATHLETICS	122
IN LIGHTER VEIN	126

The Macdonald College Magazine is published four times during College year by students. Subscription: \$1.00 per year. Address all subscriptions, etc., to the Business Manager, all advertising matter to the Advertising Manager, and all matter for publication to the Editor-in-Chief, Macdonald College Magazine, Macdonald College P. O., P. Q.,

ON SALE AT CHAPMAN'S BOOK STORE, PEEL ST., MONTREAL

LISTER ENGINES

Built in England and Sold All Over the World



Lister Engines maintain that reputation for quality of design and workmanship associated with goods of British manufacture all the world over.

Lister Milkers

Lister Grinders

Melotte Separators

Lighting Plants

Silo Fillers

Avery Tractors

R. A. LISTER & COMPANY
(CANADA) LIMITED
TORONTO

10% Discount
to Macdonald College Students

Tailored to Measure, Big, Warm

Irish Frieze Overcoats, \$45.⁰⁰

100% ALL PURE WOOL

Tailored to Measure, Handsome

English Worsted Suits, \$50.⁰⁰

100% ALL PURE WOOL

LESS 10% STUDENTS' DISCOUNT

Wm. Currie, Limited 423 Notre Dame Street West
MONTREAL

If off your route it pays to walk



THE RETIRING MAGAZINE BOARD.

A Trip To The West Indies

By E. F. Shepherd, Agr. '22.

A BELL clanged, the gangway was removed, and the "Chignecto" released from her moorings, moved slowly down Halifax harbour. We had at last started on our voyage to the West Indies which we had eagerly anticipated for several weeks.

At the harbour mouth the pilot was dropped, and a few minutes after the "Chignecto" was steaming at full speed on the Atlantic Ocean. The coast of Nova Scotia gradually faded in the distance until it was entirely lost to view.

With the exception of the fogs encountered during the greater part of the first day at sea, ideal weather conditions prevailed throughout the voyage, contributing largely to the success of the deck games organized each day, and the evening dancing parties. These activities helped considerably to relieve the monotony of life on board after the novelty of being on the ocean had worn off.

On the afternoon of the 15th, much to the relief of all on board, the very faint outlines of some of the Bermuda islands were observed on the south-western horizon, and before sunset the "Chignecto" had anchored in the calm waters of the outer harbour of Hamilton, the port of the Bermudas. The very narrow passage blasted out of the reef between the outer and inner harbours was successfully navigated at the evening high tide. As the ship approached the dock, we noticed a large number of townsfolk who had gathered along the sea wall to welcome some Bermudians who were returning from the war. These men were cheered lustily as they proceeded down the gangway.

The boat remained in Port Hamilton for about thirty-six hours, and we took the opportunity of going ashore and seeing the objects of interest in the town and surrounding country. The buildings in Hamilton, being nearly all constructed of blocks of sandstone, quarried in the island, and covered externally with white plaster, present a striking monotonous appearance, and are the main cause of the blinding glare in the town at midday.

The lack of cultivated land on the islands may be a cause for surprise, but the Bermudas are important only as a British naval station and as a winter resort, frequented chiefly by Americans, which accounts for the fact that both British and American coinage systems are current.

At high tide on the morning of June 18th we sailed out of Port Hamilton and once more proceeded on our voyage southward, ideal weather conditions prevailing as they had during the first part of the sea trip.

About two days after leaving Bermuda, we entered the region of the constant north-easterly trade winds, disclosing the fact that we were approaching the West Indies, and it was not long before several islands were passed in rapid succession. The first sight of land was obtained with the appearance of Sombrero, with its lighthouse at midnight on June 21st, and next morning the ship passed quite close to the Dutch islands of Saba and St. Eustatius. The former is a large rock with its sides rising precipitously from the sea. The houses are located on a plateau at the summit of the island.

After passing Saba, the ship's course was changed from a southerly to an easterly one, and at about 10 o'clock that morning, St. Kitts, with its lofty peak, Mount Misery, the summit of which was enveloped by clouds, was seen above the eastern horizon. The island, which has an area of about 70 square miles, consists of a main mountain range, the land on either side sloping gradually to the sea being clothed with sugar-cane and sea-island cotton, with villages and sugar works scattered here and there.

The "Chignecto" dropped anchor in the roadstead of Basseterre, the chief town of the island, about half a mile from the shore. This roadstead was the scene of Admiral Lord Hood's great victory over a French fleet commanded by Count de Grasse, during the Napoleonic wars.

Having intended to remain in St. Kitts for some weeks, we disembarked and were conveyed ashore in a small rowing boat, a number of which meet every ship that enters the roadstead.

Basseterre consists for the most part of wooden buildings, the great majority of which seemed to be badly in need of repair, hence the town presents a rather shabby appearance, in strong contrast to Hamilton in the Bermudas.

During our stay in St. Kitts we had an opportunity of seeing much that was both interesting and instructive. The Central Sugar Factory, situated on the rising ground behind the town and operated by a local company is well worth a visit. The company purchases sugar-cane from the surrounding plantations from which the cane is conveyed to the factory in trucks drawn by small steam locomotives. The raw material is converted into grey crystal sugar, the majority of which is shipped to Canada

and the United Kingdom for refining.

The sugar cane is reaped from February to July, and a constant supply is maintained to the factory, which is at the same time engaged in the manufacture of the crystalline product. The processes involved are, the crushing of the cane between large rollers; the clarification of the juice by beating it to a certain temperature followed by filtration; the concentration of the clarified juice in a series of steam-heated vessels; crystallization of the syrup so obtained in the so-called "vacuum" pans in which the air pressure is considerably reduced, and finally the separation of the sugar from the molasses in centrifugal machines. The processes are all under strict chemical control.

With the intention of returning to St. Kitts, we left the island towards the end of July on the ss. "Korona," for the purpose of visiting Antigua, an island about 60 miles east of St. Kitts. Both are included in the British colony of the Leeward Islands, embracing a group of several small islands, of which the seat of Government is situated in St. John's, the capital of Antigua.

The journey from St. Kitts to Antigua lasted about 6 hours, and the steamer was met about three miles from the landing stage by a Government tender which conveyed passengers and mail ashore.

Our stay in Antigua was of a fortnight's duration, during which time most places of interest were visited. The Anglican Cathedral, the spires of which can be seen from the harbour mouth towering majestically over the buildings of the town, is an imposing structure. A visit was paid to the Central Sugar Factory, where the process of sugar manufacture is identical with that employed in the St. Kitts Factory.

A day was spent at English Harbour, a deep and narrow inlet on the south-eastern coast, where there is an old dock-yard of much historical interest. Here it was that Lord Nelson refitted his ships during his pursuit of Admiral Villeneuve just prior to the Battle of Trafalgar. On account of the fact that it would be well nigh impossible for a steamship of moderate size to turn around in this harbour, it is not of any commercial value nowadays. We spent Peace Celebration Day, July 19th, in Antigua, and were greatly interested in the various way in which

open bolls. The "seed cotton," as it is called, is then sent to a ginnery, where it is "ginned," which means that the seed and fibre are separated by machinery. The seed is kept for local use, and the lint packed in bales and shipped. Cotton being an annual crop, the plants are turned into the soil after harvesting is complete, and the land prepared for sugar-cane.

Before we left St. Kitts, we took the opportunity of visiting Brimstone Hill, which was the scene of a memorable siege in the days when England and France were disputing the possession



A WEST INDIAN ISLAND FROM THE SEA.

the population of the island demonstrated their loyalty and their joy at the cessation of hostilities. There was a parade of the local forces, firing of a *feu de joie*, a sports' meeting, a procession of tastily decorated motor cars through the town, followed by a display of fireworks after dark.

When we returned to St. Kitts, we found that the harvesting of the cotton crop, one of the staple crops of the island, had commenced.

At a certain stage of maturity female pickers are sent through the fields and the fibre is plucked by hand from the

of the island. The hill was at that time a strong fortress and was called the Gibraltar of the West Indies. There an English garrison held out for a long period against a besieging force of Frenchmen until finally relieved. The ruins of the fortifications still stand, and are the source of much interest to visitors. The most striking feature of the hill is that it stands on the low-lying land near the sea coast entirely detached from the main mountain range.

We decided to travel by way of New York on our return trip to Montreal, and for this purpose we boarded the ss.

"Guiana" of the Quebec Steamship Company at Basseterre on the 7th of September, and our return journey commenced the same day.

The ports of call in the West Indies after leaving St. Kitts were St. Croix and St. Thomas. Both of these islands were recently purchased from Denmark by the United States Government, which had formed the plan of converting the land-locked harbour of St. Thomas into a naval base. On both of these islands there is maintained a strong garrison of marines.

A very striking feature of St. Thomas, seen from the deck of the steamer, is the almost entire lack of any cultivated land. The scrub covering the sides of the hills extends down to the coast. The importance of the island is only due to the fact that its excellent harbour provides a coaling station for steamships. The presence of a United States naval station will add to its importance in the near future.

As we proceeded northward, there was no perceptible change in the temperature, until the Gulf Stream was crossed, when there was a very sudden drop in the thermometer, due to the fact that the ship had passed from a current of warm water into a cold stream. The weather continued to be quite chilly until we landed in New York on the morning of the 14th of September.

After spending a day in that city, we left for Montreal on the evening train and arrived at our destination on the morning of the 15th.

It was with mixed feelings of pleasure and regret that we disembarked from the train at Bonaventure. We were at home again, but we nevertheless were very sorry that we had come to the end of our long summer's trip, which had been so successful both from the standpoints of the pleasure it had afforded and of its great educational value.



The Nova Scotia Agricultural College

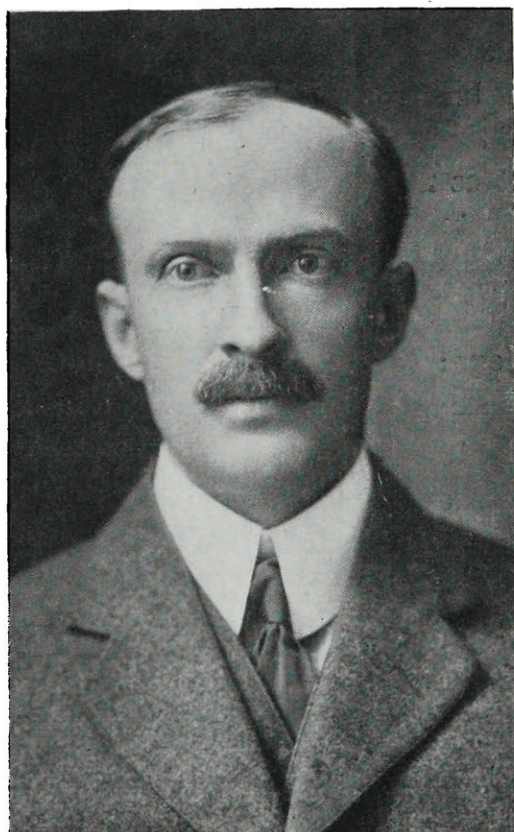
*By Prof. M. Cummings, Principal, Nova
Scotia Agr. College, Truro.*

THE Nova Scotia Agricultural College, at Truro, was formally opened in February, 1905, under the Principalship of the writer. Twenty years of definite agricultural education instruction preceded this event and prepared the way for it. A Chair of Agriculture was established in connection with the Provincial Normal School at Truro in 1885, of which Prof. H. W. Smith, now Professor of Botany at the Agricultural College, Truro, was the incumbent. Three years later, a farm, the nucleus of the present Agricultural College Farm, was purchased and a school building was erected in 1892 on the foundation now occupied by the Science Building. This building was destroyed by fire in 1898. During the twenty years preceding the establishment of the present Agricultural College, the School was attended by all the students of the Normal School and also by a very considerable number of farm students, who applied themselves exclusively to agricultural studies. Among these latter were a number such as Prof. Blair, Chief of the Horticultural Division of the Illinois Agricultural College, Prof. Trueman, formerly Professor of Dairying at Storrs, Conn., and now Professor of Agriculture at Truro, and a number of others who are ranked among the leading educationalists of America, and prominent farmers of Nova Scotia.

In 1893, a similar school for the teaching of Horticulture was established in Wolfville, under the patronage and direction of the Nova Scotia Fruit Growers' Association, and through its

halls also passed men who are exerting a marked influence on the Horticulture of Eastern Canada.

Both of these institutions were limited in their scope and, therefore, it was decided to unite the two schools into a College of Agriculture at Truro. This was consummated in 1905 with the present writer as Principal and Prof. H. W. Smith, head of the former School of



PROF. CUMMINGS.

Agriculture, as Professor of Botany, Prof. F. C. Sears, Head of the School of Horticulture, as Professor of Horticulture, and now on the staff of the Massachusetts Agricultural College; F. L. Fuller, now Superintendent of Agricultural Societies for the Province of Nova Scotia, as Farm Superintendent; and J. P. Landry, as Poultry Superintendent.

The newly-founded college was inaugurated by a Short Course held during the first two weeks of February, in which were enrolled 68 students. On October 15th following, the first session of the regular course was commenced, the enrollment being 17.

From that time on the institution made steady progress, as evidenced by the increasing number of students. The banner year was that of 1913-14, immediately preceding the war, when there enrolled in the Short Course 350 students and in the regular course 114 students. During the progress of the war, the numbers were reduced to less than half the above enrollment, but now that peace reigns and the time of reconstruction has commenced, it is anticipated that the classes will soon be filled by at least as many students as were enrolled prior to the war.

The following courses are now conducted at the Nova Scotia Agricultural College:

1. — The regular two years' course, equivalent in character to the two years' course at the other Canadian Agricultural Colleges. It is likely that the regular course will be confined to two years for some time to come, first of all because it is the aim of the institution in the main to prepare its students for life work on the farm, and it is considered that a two years' course is best suited for this purpose. Moreover, for the 10 to 20 per cent of students who wish to continue their agricultural education, ample and satisfactory opportunities are offered at Macdonald College, Quebec, at Guelph, Ontario, and other Agricultural Colleges as well. During the past fourteen years of its history the majority of the graduates who have continued their courses have divided about equally between Macdon-

ald and Guelph, and it is with pardonable pride that we point to the high standing which these Nova Scotia graduates have maintained at both of these institutions.

2.—Short Course for Men in Field Husbandry, Animal Husbandry, Horticulture, Dairying, Poultry, Veterinary Science, etc. It is generally agreed that no other work conducted at the College has so largely influenced the agriculture of Eastern Canada as the instruction given at this Short Course, which is held annually during the early part of January. Commencing with an inaugural attendance of 68, the enrollment at this course gradually grew to 350, and there have been intermittent attendances as high as 500.

3.—Short Course for Ladies in Domestic Science, Dairying, Horticulture & Poultry. A complete Domestic Science School for Women has not yet been established although the necessary class rooms and equipment are available. However, a Short Course of two weeks' duration has been held annually since the opening of the institution, with an average attendance of from 50 to 75. It is in mind that this Short Course will shortly be developed into a more pretentious and extended course.

4.—Three Short Dairy Courses as follows:—

Two weeks for Creamery Men, two weeks for Cheese Makers, and two weeks for Milk Testers. These special Dairy Courses are financially supported by the Departments of Agriculture of the three Maritime Provinces, and it is hoped that out of these will shortly develop a "Maritime Dairy School."

5.—Rural Science School for Teachers conducted in affiliation with the

Provincial Normal College. This Rural Science School is held during the months of July and August each year, so organized that school teachers of the Province may in three vacation periods complete the course of instruction and obtain a Rural Science diploma. As an alternative, qualified students of the Normal College may enter the Rural Science classes in May and obtain the Rural Science diploma at the completion of the school in August. The Rural Science School is under the superintendence of L. A. DeWolfe, Director of Rural Education for the Province of Nova Scotia. Its aim is to teach nature study and the sciences related to agriculture to the teachers of the Province so that they in turn may develop this branch of education in the schools of the Province.

Temporarily, the College is conducting a sixth course for returned soldiers who wish to qualify themselves to become farmers. The present enrollment in this course is twenty-three.

The equipment of the College consists of five buildings used for instruction and investigation purposes, described respectively as the Main Building, the Science Building, the Horticultural Building, the Dairy Building and the Live Stock Judging Pavilion. Plans are in mind for the addition of further buildings as opportunity arises. The property owned by the Institution consists of some 425 acres of land, of which 380 are operated for arable and pasture purposes by the Farm Department, 30 for gardening and fruit growing purposes by the Horticultural Department, the balance being occupied by the campus and the Poultry Department.

In the earlier years of the history of the College, the greatest attention was paid to the development of a strong

live stock department, in which the College management takes great pride. Latterly, the Horticultural Department and the Biological and Chemical Departments together with the English, Mathematic and like departments, have also been placed on a strong footing, giving the institution a well-balanced character.

The College is maintained by appropriations from the Provincial Government and from funds provided by the Dominion Agricultural Instruction Act. Part of the maintenance of the special dairy classes are paid by the Governments of Prince Edward Island and New Brunswick. While dealing with this aspect of the institution it may be stated that on several occasions efforts have been made to develop the College into the Maritime Agricultural College, supported jointly by the three provinces. Whether this ideal will be consummated or not, the writer cannot say. None the less, it is our opinion that it would materially strengthen the agricultural development of the East, to say nothing of the institution itself, if this Maritime union were effected.

Students of the Nova Scotia Agricultural College, along with those from every other educational institution in Canada, have heroically played their part in the great war. Out of some 150 students from the regular course who enlisted, we mourn the loss of twenty-one who were either killed or died in uniform. Preparations for a suitable memorial for these students, whose names will ever remain on the Roll of Honor of the College, are now being made.

This article would not be complete if, in concluding it, reference were not made to the College extension work, which has gradually been developed

since the year 1912, which work was made possible through funds provided under the Federal Agricultural Instruction Act. This extension work includes the placing of County Agricultural Representatives in a number of counties in the Province as well as a staff of field men specialists in Horticulture, Entomology, Chemistry, Dairying and similar lines. It is not within the compass of a short article to detail the work

which is now being accomplished by these field men. It is sufficient to state that through their work the results of agricultural investigation are being brought to the homes of farmers all over the Province, and results are being achieved which are redounding to the usefulness of the College and to the development of an improved agriculture in Eastern Canada.

Technical Agriculturists Organizing

IF organization ever meant anything in the world's history it means something today. Without organization it is impossible for large groups of individuals, and difficult for smaller groups, to achieve success in their various lines of occupation.

An organized group of men representing a profession is not only a power which can advance the interests of its members, but it is an organization which can wield a mighty influence in the betterment of the national welfare and prosperity.

For years we have had our medical men, dentists, engineers, chemists, etc., welded together in separate organizations, whose object it has been to further their respective professions, and who can gainsay the statement that each of these organizations has not been a powerful factor in advancing the cause of civilization as well as furthering the interests of their own associations at a pace commensurate with the progress of the rest of the world. Agriculture, admittedly the basic industry of a young country, as a *profession* remains unorganized. It is now proposed to bring about such an organization of Canadian technical agriculturists un-

der the name of "The Canadian Society of Technical Agriculturists."

This movement had its inception at the recent Alumni Reunion of Macdonald College, when a committee was appointed to bring about a closer co-operation and ultimate organization of Canada's technical men engaged in agricultural pursuits.

Objects of the Society.

The objects which up to the present have been considered as the possible ultimate objects of the Society are as follows:

(1) To advance the cause of scientific Agriculture in its various phases, and bring the members of the profession to a fuller realization of the importance of their calling.

(2) To bring about a closer co-operation between all workers engaged in the agricultural profession in Canada, and aid in bringing about a closer co-operation and co-ordination of the Federal and Provincial administrations in agriculture.

(3) To aid in ensuring the employment of technical men for technical positions by bringing the public at large

to a fuller realization of the value of competent technically trained agriculturists.

(4) To aid in attracting the best men to the profession by attempting to establish an adequate standard of remuneration for technically trained men and women.

(5) To serve as a medium for keeping employers of technically trained men in touch with competent eligibles.

(6) To bring about a closer co-operation between the profession as an organized body, and the various agricultural associations throughout Canada, and wherever possible to aid them in their organization and propaganda work.

(7) To serve as a medium where progressive ideas for improvement in agricultural education, experimental, research and publicity work, etc., can be discussed and formulated into practicable working form and recommended for adoption when deemed advisable.

(8) To ultimately serve as a medium for the publication of a journal in the interests of scientific agriculture, in which advanced ideas for the development of the industry may be exchanged.

Organization of the Society.

The Committee has under consideration the organization, constitution etc., of a number of professional organizations, such as that of The Institute of Architects, The Society of Chemical Industry, The British Columbia Technical Association, and others like the Canadian Manufacturers' Association. After giving the matter some careful thought the Committee has decided to suggest that it will be in the interests

of all if the organization of the Canadian Society of Technical Agriculturists be somewhat as follows:—

(a) The Dominion Council of the Society, or the Dominion Board of Directors, constituted as follows: President, First and Second Vice-Presidents, Honorary Secretary, Honorary Treasurer, and as many members of council as shall be decided upon at date of organization.

1. An Executive Committee of the Dominion Council.

2. Standing and Special Committee of the Dominion Council.

3. An organizing or paid Secretary of the Dominion Council.

(b) Provincial and Local Chapters or sections of the Society, constituted with a President, First & Second Vice-Presidents, Honorary Secretary-Treasurer and members to form the local council to constitute the local Executive.

(c) The Dominion Executive: The President and Honorary Secretary of each provincial or local chapter shall by reason of their position form part of the Dominion Executive Committee. Such committee to be called into session by the direction of the Dominion Council or the requirements of the Constitution at the annual or any special meeting of the Society.

(d) Standing and Special Committees: These shall be constituted to meet the requirements of each case but should consist of a chairman and one or more members of the Dominion Council, together with members of such provincial or local sections as are qualified to promote the objects before the Committees.

Eligibility for Membership.

Persons to become members of this Society must be:—(a) graduates of a University of recognized standing and engaged in agricultural, research (or in the allied sciences), experimental, extension or publicity work, or practical farming; or (b) engaged in any of the

above occupations and accepted by a three-quarters vote of the Dominion Executive.

Send at once for application forms and full particulars regarding the formation, policy, constitution and by-laws, etc., to the Secretary, Canadian Society of Technical Agriculturists, c/o University Club, Ottawa.

From Swords To Plowshares

By C. Eric Boulden, B.S.A.

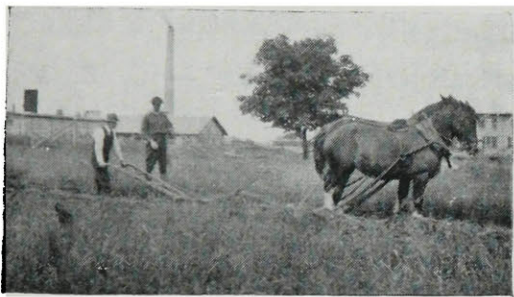
In ancient days an army, during times of war, was more or less forced to exist on the products of the country occupied. Today, with our modern methods of preparation, storage and transportation, armies can draw on the products of countries all over the world. For the above reasons during the past war Canada was called upon to produce to her utmost. In spite of these conditions many men enlisted from the farms, moreover many men who had before been occupied in the cities and towns prior to the war, turned to the farm for a future vocation. It is the intention of this article to deal in a very general way with the methods of handling these men.

The Land Settlement Board is the principal organ through which this work is conducted. Representative branches are placed all over the Dominion, and each has the following work to undertake: The examining of applicants, the training of those not qualified, the placing of men on farms, purchase of stock, implements, etc., and general assistance to the soldier after he is settled.

In carrying out the above work many difficulties arise and possibly the fol-

lowing suggestions may help to give a clearer understanding to all interested. At the close of the war the general trend of feeling in the minds of many soldiers was to settle on the land, the out-of-door life in the army had fostered this feeling in many cases. Unfortunately many who do not realize what farm work means, and have little conception of the conditions in a country community, wish to undertake the work, although they have really no special liking for it.. On account of the importance of the industry, Agriculture was the one vocation in which special inducements were offered by the Government, this factor also attracted the attention of many unsuitable men. The individual qualities and the experience required to make a suitable farmer is not as a rule fully appreciated. The man who can succeed with little or no experience is quite the exception. Thus it may be seen that the board which has to examine the applicants has no easy task, and moreover would not only be doing an injustice to the individuals concerned, but also to the country, if they pass unsuitable men. The second and probably the most difficult step is the factor of selecting

suitable farms. The men are allowed to select their own farms, which are then inspected by representatives of the board, and if approved of are purchased. The correct valuation of farms is often difficult and the selection at a convenient time of the year is also a point to be considered, as the average man has no time to spare nor money to spend in this connection. The purchase of stock and implements is often accompanied by considerable delay



D.S.C.R. MEN LEARNING TO FLOW.

which is usually necessary in order to safeguard both parties, however it is none the less inconvenient.

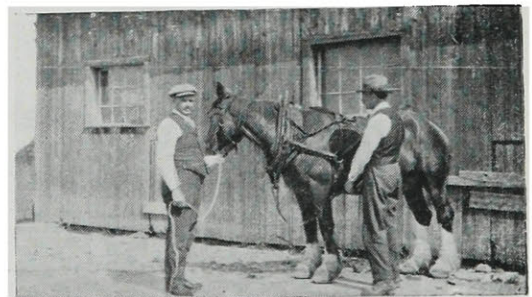
Besides the work of the Land Settlement Board, a limited number of men are being trained in agriculture by the Vocational Branch of the Department of Soldiers' Civil Re-establishment. This branch have nearly two hundred different courses to give, consequently this subject plays but a small part in the general list.

Only men so disabled that they cannot return to their former occupation, and those who enlisted under age are eligible for these courses. The majority of these men who take agriculture pass through the above mentioned organization after finishing their vocational course.

The work in connection with the returned men at the College is under the Vocational Branch. As a rule the men

are granted eight months for their course. They are tried out at the college for a few weeks, during which time they do practical work with the equipment at their disposal; this equipment includes a small stable fitted in a practical and inexpensive way, a small poultry plant and a farm garden. They also do practical work in the various college departments. The majority of their time is spent, however, with practical farmers in various parts of the province. During the winter lecture courses of three months are given, and each man is expected to attend one of these. Special Instructors with the aid of the regular college staff carry on these courses. On account of their physical condition most of these men are taking more or less specialized work rather than a general mixed type of farming.

In order to facilitate the work outlined the farmer should play a very important part. The farmer, often with



THE ART OF HARNESSING A HORSE.

just reasons, is inclined to look upon any beginner as a sure failure. It should be remembered, however, that these men have been picked out by farmers as likely to succeed. By helping these men to gain suitable experience, to secure suitable farms, or to carry on their farm operations he will not only be helping the men who did their bit, but also assisting in the still great need for greater production.

THE MACDONALD COLLEGE MAGAZINE

"Mastery for Service"

PUBLISHED BY THE STUDENTS.

VOL XI.

DECEMBER-JANUARY.

No. 2

MAGAZINE STAFF

Editorial:

Editor-in-Chief—R. A. Derick.

Assistant Editors—A. R. Milne, Agr. '21;
Miss Frances Wheeler, Sci. '20, Miss
Grace Shortley, T. '20.

Advisor to Executive—S. R. N. Hodgins.

Business:

Business Manager—O. C. Brock, Agr. '21.

Ass't Business Managers — J. G. Brown,
Agr. '21; Miss Hattie Pearson, Sci. '20;
Miss Edna Harrison, T. '21.

Advertising Manager—A. L. Hay, Agr.
'20.

Assistant Adv. Manager—A. W. Peterson,
Agr. '21.

Department Editors:

College Life—J. B. Smith, Agr. '21; Miss
Honor Gifford, Sci. '20; Miss Helen
Casselman, T. '20.

Athletics—W. D. Hay, Agr. '20; Miss
Yvonne Williams, Sci. '20.

Agronomy—A. E. Matthews, Agr. '20.

Live Stock—E. Ashton, Agr. '20.

Poultry—Miss P. McClintock, Agr. '21.

Horticulture — Miss A. MacAloney, Agr.
'20.

Alumni:

Agricultural Graduates — J. E. McOuat,
B.S.A.

Agricultural Undergraduates — Miss D.
Newton, Agr. '21.

Household Science — Miss Helen Nation,
Sci. '20.

Teachers—Miss F. Forster, T. '20.

Humorists—P. Ashby, Agr. '22; Miss Mar-
garet Holcomb, Sci. '20; Miss E. Tilton,
T. '20.

Artists — A. W. Birch, Agr. '20; Miss T.
Zeiderberg, Agr. '23; Miss P. Matthew-
man, Sci. '20.

Proofreaders—E. F. Shepherd, Agr. '22;
E. McOuat, Agr. '23.

Photographers — M. B. Paige, Agr. '21;
Miss D. Putnam, Sci. '20; Miss M.
Smyth, T. '20.

Faculty Items—Prof. J. F. Snell.

EDITORIAL

It is the beginning of a New Year and of a new term at College. And again we notice many changes within our ranks—particularly in the personnel of our fair friends from across the campus.

The 1919 class of Elementary Teachers and the 1919 short course students in Household Science have gone out into the world to put to the test the training they have received here, and other girls are coming in to take their place. And we are reminded of the words of the Psalmist when he said,

"One generation passeth away and another generation cometh." It seems the lot of colleges, however, to be forever echoing to the sound of new footsteps.

To those girls who have gone out of Macdonald College we wish all good things. We enjoyed their stay with us, and we hope that Macdonald College has meant something very definite in the life of each of them. We shall not forget them, and we are sure that they will always remember with pleasure their Alma Mater.

To the incoming seekers of knowledge we extend the glad hand of fellowship. We hope you will feel that Macdonald College is a real home, and that you will quickly find your place in the college life here. We welcome you, and hope that your stay with us will be altogether a pleasant and a profitable one.

THE NEW YEAR.

It is surprising the number of disillusioned persons one meets with who admit loudly that they didn't make any New Year's Resolutions this year because these resolutions, like news, are so often broken, and who laugh to scorn those of us who do make an annual six-day stab at giving up smoking. But these misanthropes do not affect our views a bit. Let them laugh. We get a lot of joy ourselves in being sorry for them. They don't believe in a Santa Claus either, these people, nor do they credit the story of "the pot of gold at the foot of the rainbow." And as for Jonah's whale story, they wouldn't touch it with a ten-foot pole. They are sure-thing gamblers, and when they see anything with an element of chance in it such as New Year's resolutions (though personally we see no "chance" in a n. y. r.) they leave it alone.

Notwithstanding the arguments of these persons, however, we have gone ahead and have made a whole bunch of resolutions this year. Why shouldn't we? Isn't that what the New Year is for? You can't make New Year's resolutions at any other time of the year, so it follows that we should make them at New Year's. And so far as the breaking is concerned--of course we shall break our resolutions. We never expected to do otherwise. If we expected to keep all our resolutions we

wouldn't make so many, for it would be an awful bore to keep all we make. But that is no reason why we shouldn't make them. It would be as sensible to argue for the destruction of the ten commandments as laid down in The Book, because they are so often broken.

No, it is a good thing to make good resolutions. It is a good thing to turn over a new leaf. We are at least benefitted during the time required to concoct the new resolutions, and that is always something. At best we must always fail in some things and what we must leave to do is to keep on trying, remembering the words of someone whose name has slipped our memory.

"Perhaps the longing to be so
Helps make the soul immortal."

So let us start the new year right. Shopkeepers, at this time of year go over their wares, dusting the shelves, clearing out old goods and replacing them with new. Let us also do a little stock taking. It would do us all good to have a try at some new year resolutions. Let us say for example that we each try the following:

Resolved that I shall:

- (1) Study a little every night.
- (2) Turn out regularly for at least one kind of sport.
- (3) Get up at six a.m. and have a swim before breakfast.
- (4) Attend all meetings of the student body.
- (5) Throw away my hammer and get a horn.

We have a long term ahead of us. And if each of us will do his part, college life will go with a swing and we shall have a wonderful time. Let us get into it with both feet now at the beginning of this New Year.

S. R. N. H.

FINANCIAL ASSISTANCE FOR RETURNED SOLDIER STUDENTS

A movement is at present on foot, with the object of obtaining financial assistance from the Canadian government, for those returned soldiers attending Canadian colleges and universities, who can establish the need for it. These men are preparing themselves to take part in the various professional occupations for which their studies fit them. The student of today is the qualified professional man of tomorrow. Canada will have particular need of every trained man available within the next few years, and it is in her interest that this demand should be supplied, as far as possible, from the ranks of Canadians, as they should be of all men the most conversant with Canadian conditions and are of all people the most likely to have her best interests at heart. Unless financial assistance is forthcoming, a large percentage of these men will not be able to complete their studies, and their loss to Canada will be irreparable. These men are not making exorbitant requests, but only ask for sufficient to cover that part of their expenses which they themselves cannot earn, and it is estimated that the total cost would not be more than \$4,000,000. It is in the best interests of Canada that this question should be freed from any party spirit and viewed from the broad standpoint of Canada's future welfare. The youth of a country is its greatest potential asset, and at such a time as this, anything that can be done to increase its future efficiency should be amongst the first objects of those who are entrusted with the reins of Government.

Everyone who has Canada's real interests at heart should do everything possible to help this movement forward to the realization of its purpose.

THE RETIRING BOARD.

"The old order changeth, yielding place to new
And God fulfils himself in many ways
Lest one good custom should corrupt the world."

When this issue of the Magazine reaches the hand of our readers we of the present managing board shall have finished our task. We shall ourselves have passed over into the ranks of "the readers," while other hands will wield the pen and the paste, the scissors and the sentences that are used in the editing and publishing of the Macdonald College Magazine. But be of good cheer. All is not lost. We admit we have been a good board, but a better one is coming.

We have enjoyed our little term of office on the magazine staff. While the getting out of a magazine of the calibre of this one is not all beer and skittles yet there is plenty of fun to be gotten from the work if one looks for it—and there is a wealth of experience for the workers. And so we leave the magazine office almost with reluctance, for we grow to love the workmanship of our hands.

During our watch aloft we have endeavored to interpret the ideals of the Macdonald College Magazine to the best of our ability, and we hope that we have not altogether failed. We have been supported by a goodly bunch of workers among the students, and we hope that the next board may have even better support from the student body. Remember that this magazine cannot be produced unless each of us does his bit.

And now as we lay down our pen and empty the waste paper basket for the last time we wish our readers a very pleasant, prosperous and profit-

able year. This new year is filled with golden opportunities. It is for us to seize them. And to the new magazine board who have come to relieve us, in the language of the Roadmender, "we cry you Godspeed to the next milestone—and beyond."

EXCHANGES.

We have received since our last issue a number of exchanges for which we are very grateful.

It has been our intention to build up a heavy exchange department because we believe that it is through such channels that our students are able to

gather much from the college activities as put forth in these different publications.

Some of the leading articles which appear in our exchanges are indeed very creditable and instructive. Those coming from agricultural colleges are especially interesting to us, written as they are by authorities on agricultural topics.

Among those received are: The O. A. C. Review, Managra, Saint-Andrew's College Magazine, The Argus, The Collegian, The University Monthly, The Black and Red and the Queen's Journal.



AT MIDNIGHT IN THE MAG. OFFICE.

AGRICULTURE.



Recording Pure-Bred Sheep

By A. E. MacLaurin., B.S.A.

THERE is a vast need of improvement in the registration and transfer of pure-bred stock in Quebec. This need is general with all classes of stock, but this article will deal with the matter as it affects the sheep industry.

Varied experiences have shown that there are three main reasons for this deplorable state of affairs. These are: first, a lack of systematic private records; second, a lack of information as to the procedure in getting animals registered or transferred; and third, a great and lamentable indifference in the matter of having animals properly registered and transferred when sold.

In order to keep satisfactory private records the breeder should supply himself with a private flock book, a pair of ear punches, ear tags bearing private numbers and initials, and some system of ear marking to be used on the young

lambs. This equipment entails very little outlay. A good strong notebook, 8" x 10", with a good quality of ruled paper will make a very good flock book when properly ruled out. For a very complete record we would suggest the use of thirteen columns of varying width, depending on the nature of the entries to be made in each. With a notebook of the size suggested there will be sufficient room if two opposite pages are used for one set of columns. The columns should be headed as follows:

Column:

- 1—Ewes name and association number.
- 2—Date of breeding.
- 3—Name and association number of ram used.
- 4—Date due to lamb.
- 5—Date lambed.

- 6—Sex of lambs.
- 7—Ear mark of lamb.
- 8—Private number and initials of lamb.
- 9—Date applied for registration.
- 10—Date applied for transfer.
- 11—Date pedigree received.
- 12—Association number given.
- 13—Remarks.

The above may appear to be very elaborate, but it will be found that a great deal of confusion and inconvenience will be avoided if such a book is carefully kept. Each ewe should be allowed two lines of the book, so that there will be no crowding when entering in the case of twin lambs.

Young lambs cannot be permanently ear tagged, yet they should be marked so that they can be identified beyond all doubt. The common method is to make nicks in the ears, following some system so that each nick or set of nicks represents some number. Nicks are usually cut with an ear punch, using half the cutting edge, so as to make an indentation rather than a hole. For the small flock the following system of nicks may be used.

- No. 1—One nick at base of right ear.
- No. 2—Two nicks at base of right ear.
- No. 3—One nick at point of right ear.
- No. 4—One at point and one at base of right ear.
- No. 5—One at point and two at base of right ear.
- No. 6—Two at point of right ear.
- No. 7—Two at point and one at base of right ear.
- No. 8—Two at point and two at base of right ear.
- No. 9—One in centre of right ear.
- No. 10—Two in centre of right ear.
- Nos. 11 to 20 are made by using the same system in the left ear.

Ear punches and ear tags may be purchased from the Canadian Co-operative Wool Growers, Ltd., 128 Simcoe Street, Toronto, and may be ordered through any secretary-treasurer of the local Wool Growers' Associations. The ear punch is not only convenient for nicking the ears of the young lambs, but is a necessity when inserting the ear tags in the fall. Private ear tags should bear the initials of the breeder and consecutive numbers. For example, if John Thomas Smith orders 500 ear tags for the first time, he should order them with the initials J.T.S. and numbered from one to five hundred. The common practice is to name the animal after the ear tag inserted, thus a lamb bearing the ear tag J.T.S. 20 would be named J. T. Smith 20.

It is unnecessary in this article to go into the detail of the procedure of applying for registration and transfer. In the first place every breeder should become a member of the Canadian Sheep Breeders' Association, and, since the membership fee is only \$2.00, and registration fees are doubled to non-members; it is a saving of money to become a member. All sheep records are kept by the Canadian National Live Stock Records Office and all correspondence should be addressed and fees made payable to the Accountant, Canadian National Live Stock Records, Department of Agriculture, Ottawa, Ont. Blank application forms for registration and transfer may be had free of charge by applying to the above office. Careful perusal of the instructions on the back of the application form for registration will give all the information necessary.

Probably the greatest trouble with pure-bred sheep records is caused by the indifference and procrastination

common in many who breed and sell sheep. In this both the seller and the buyer are to blame. One of the most foolish and absolutely undesirable habits is that in which the seller hands over the pedigree of the animal sold without first having it transferred to the purchaser. A pedigree of this kind is of as much use to the purchaser as so much waste paper. Another habit which is too common is that of handing over the pedigree with a signed transfer attached. In this case the purchaser may apply for the transfer himself, but he should not have to do it and, as a matter of fact, he very often neglects the matter entirely. Every seller of any pure bred registered animal is supposed to record that animal in the name of the purchaser, and

every purchaser should insist on this rule being followed. Animals may be transferred free of charge if application is made within sixty days of date of sale, therefore there is no excuse for the man who refuses to transfer animals properly and promptly.

The breeder who is properly equipped and who keeps a good set of books will find little difficulty in registering and transferring. The identity of each animal will be clear and his private records will show at a glance just the information that is needed to properly fill out the application forms. The private record should be kept up to date at all times;—entries should be made as events happen, otherwise there is no virtue in keeping records.

Value of Test Work

By Bruce Ness, Agr. '22.

WHAT part, in the minds of our breeders, is Record of Performance work going to play in estimating the value of our breeding stock?

In 1902 the Ayrshire Breeders' Association, seeing the need of records for quantity of milk and butter, produced by individual cows, established a record of merit which was called the Record of Performance. Breeders could enter any number of pure bred cows in this test, which lasted for one year or one milking period. Each cow was required to produce a certain amount before she could be recorded as qualified. By these records the breeders have had a great opportunity to pick out their profitable animals and to discard the poorer ones, thus establishing certain individuals, or families. In many

cases, this discarding has not been carried out, in which case, they did not get the full benefit of the R.O.P. work. This testing has brought out great competition between the different breeds and it is always bringing some heavy producers to the fore. It is remarkable what great results this R. O. P. has accomplished for all the dairy breeds.

We have come to a period now, where R.O.P. work is necessary in order to make the most out of dairy cattle breeding. The purchaser of today is not only looking for individual type and quality, but he also wants to know something of the producing ability.

It has been the custom to advertise largely by exhibiting stock at large fairs. It is true much advertising is

done in this way, as exhibition stock is generally up to a very high standard for both appearance and milk producing qualities. Every man cannot exhibit at large shows, but he can at least enter his best cows, if not the whole herd in the R.O.P. In this way, he will in all probability, make more out of it, as there is much less expense and not nearly as much waste of time, and his efforts mean more milk.

The tendency has been in the past for breeders to enter only their best animals and make large records, in any case that is what is being done. Some breeders are fortunate enough to have one extra large producer in their herd, and this individual does a tremendous amount of advertising through the R. O. P. tests. Most valuable results can be obtained from testing a large number of cows than by testing two or three. Breeders should aim to enter more animals and increase in this way the average production of their herds. The herd with a number of good average records is more suggestive of its ability to produce than if it had only one or two especially large records, and so the individual cow with a number of good average records is more suggestive of its ability to produce than if she had only one especially large record to her credit.

In the past, these records were not

so valuable when buying young stock, they were not regarded to be as important as form and type appearance. At present, young stock is generally priced according to the records of the dam and sire. If a cow produces a large amount for a number of years in succession her offspring is likely to sell for more than the offspring of a cow with only a one year record.

The offspring may not be of the extremely type looking kind, but if it has inherited producing quality it makes it more valuable. This points out to you the importance of the R.O.P. work.

Many who have started this systematic testing have had their minds changed as to the individuals which should be kept for propagating the herd. Some cows are not worthy of a place in the herd, even if they are the nicest to look at. This has been proven by members of the Cow Testing Association. Improvement in stock does not come naturally, but by selecting the best individuals and while the individuality and conformation of a dairy animal is of importance, it is what the animal will produce that counts most. If the average production of milk and fat is to be raised, and it should be, the breeding females must be selected according to production as well as to form.



The Improvement of Cereal Crops

By Prof. R. Summerby, B.S.A.

THE problem of making two blades of grass grow where one grew before has been the ideal of Agriculturists for many centuries. It matters not whether this be accomplished by good methods of tillage, fertilizing, rotations or by the selection of individuals that have an inherent ability to produce more than others of their race. By whatever means it is attained such an increase would be of enormous value to the individual, to the nation and to the world. It would solve the problem of the high cost of living for the present at least, and would make it possible to meet the demands of a large class of our citizens for a six-hour day.

Few breeders ever hope to attain results of such magnitude. Even small increases of one, two or three bushels per acre in the case of grain crops would add hundreds of dollars to the profits of the growers and would mean many millions of dollars to the country as a whole. Improvement in yield is, however, not the only valuable result attainable by breeding. The ultimate value of the crop produced is the basis upon which one must judge improvements. A high yield of wheat is of little value if not accompanied by good quality for bread making. A high yield of oats is of no particular value unless this also means a high feeding value.

Under many conditions the selection of characters other than those of yield and quality will make for greater attainments. The selection of wheats for earliness has made wheat growing in the west a much more certain proposi-

tion and has transferred the limits of successful production much farther north. The attainment of an oat variety that has a particularly strong straw would reduce the loss due to lodging very materially. The selection of varieties adapted to different conditions of soil and moisture cannot but effect an improvement equal to large increases in yield. The adaptation of crops to the conditions under which they are to be grown is equally as important as direct increases in yield and is often much more easily attainable.

Where and how to start is the first question that the breeder must ask himself. Shall he use some of the commonly grown varieties that are considered good or what shall he do? In many cases in the past too little attention has been given to the choice of foundation stock with the result that, even though distinct improvements have been made over the original, the resultant product is found to be inferior to some that have been grown elsewhere. This serves to emphasize the importance of the breeder making a thorough survey of the varieties and strains that have proven most successful under conditions closely similar to those for which improved varieties are needed. A close and thorough study of the existing varieties and strains over a period of years, will alone furnish this needed information and at the same time will give the breeder an intimate knowledge of the parent stock which he finally chooses as the basis for future breeding.

Experience has shown that most of the standard varieties of cereal crops

are made up of several or many strains. Some of these more nearly approach the ideal than the others. In our important grown cereal crops the flowers are **normally** self-fertilized. This being the case, it seems reasonable to suppose that a strain when once isolated will not change. Wide variations are, of course, caused by changes in environment, natural crosses probably occur more frequently than is commonly supposed, and it is difficult to prove that variations are not caused by other factors. The above supposition is, however, true in a very large majority

Strains of Joaonette oats—

Joanette	Days Maturing	Height in Inches	Per cent. Hull	Comparative Yield	
	5 yrs.	5 yrs.	3 yrs.	Bus.	No. yrs.
407	105.6	30	25.77	67.30	8
607	98.6	37.5	25.38	71.30	9
1207	96.2	37	22.50	67.40	9
2007	94	35	28.18	67.50	9
2707	103.4	33.5	28.11	56.90	9

In this test it is seen that there are differences of over eleven days in the



VARIATIONS OCCURRING WITHIN THE JOANETTE OAT.

of cases, and when once isolated prospects of improving a self fertilizing strain are small.

Just how much improvement can be effected by thus isolating races depends on the composition of the original variety. Some varieties are made up of a number of strains that are very similar, while other varieties show a wide range of variability. Results of selection from the Joanette oat will serve to illustrate the degree of variation that occurs between strains of the same variety.

time of maturity, seven inches in height, five in per cent hull, and fifteen bushels per acre.

In contrast to these wide variations a strain when once isolated varies little. The following table shows a comparison of six substrains each of which was developed from a single head selected from the same mother plant.

Results of five years' test of seven strains of barley from the same mother plant (common six-rowed variety) with yield for 9 years.

Strain	Days Maturing	Lodged	Height	Weight per Bus.	Yield per acre
5707a	85.8	18.2	32.0	45.45	66.33
5707b	84.0	19.4	31.5	45.30	66.29
5707c	84.0	18.4	30.5	45.55	64.73
5707d	84.0	18.6	31.0	45.75	64.79
5707e	84.2	17.8	31.0	46.2	66.01
5707f	84.2	17.4	31.0	46.0	64.71
5707g	84.0	17.8	30.0	45.9	65.29

The behaviour of these strains is quite similar and the results are well within the limit of experimental error.

Most of the superior varieties of oats and barley and some of the best wheat varieties grown in Canada and in America have been produced by isolating the best strains from old varieties. Since, however, a strain when once isolated can be changed but little, future improvement must be sought along other lines. Resort must be made to hybridizing.

Even greater care is needed in choosing the parent stock for crossing than in selection work. Strains that have been isolated by selection and have proven themselves superior in most of the important characters should alone be used. The parents should possess between them all the characters desired in the new product.

The variation and segregation of characters in the progeny follow definite laws some of which are well understood, while others are complex and require much further study. A discussion of this behavior would make this

article too long for its present purpose. It best suffices to say that these new productions must be isolated and fixed by continuous selection in the desired direction. This may take a short or long time, depending on the character sought and the fortunate one has in selecting the proper individuals.

Many of our most popular and best varieties of wheat in Canada have been produced by crossing. The fact that up to the present few barley or oat productions have proven of superior value does not mean that this method of breeding is ineffective. In some cases it has been a lack of knowledge of the laws of breeding; in others it has been the choice of foundation stock, and again it may mean a lack of patience and persistence on the part of the breeder in seeking to attain a certain definite object. There is no doubt whatever but that thorough systematic work will make for as much improvement in other crops as has been the case with wheat.

A necessary requisite however in attaining results is a competent and well trained man in charge of the work. He should not only have a good knowledge of botany, but also thorough training in statistics, biometry and mathematics, he must have a practical knowledge of crops, the needs of the country and an unlimited amount of patience and persistence. Given these there is ample room for attainments that will satisfy the most energetic and the most ambitious.

The Importance of Forage Crops

By E. A. Lods, B.S.A.

THE Flemish saying, "No grass no cattle, no cattle no manure, and no manure no crops" emphasises the importance of the hay and pasture. To a large extent the same is applicable to forage crops generally. All through history the countries rich in grass lands have been important agriculturally. In the nomad days those sections where good grazing was to be found were heavily populated, and the others were neglected. Naturally there were the wonderful exceptions where there existed specially favorable conditions for the producing of fruit and of grain. Coming to more modern times we find that the parts of western Europe which were blessed with natural grass producing conditions were flourishing, while other parts were at a standstill with the exception of limited areas which were particularly adapted to special products. Naturally, with the advancement of civilization and the settling of conditions so that the attention of the farmers was to a greater extent centered upon production, methods of crop growing improved materially, with the result that there was less dependence upon the natural grass productive power of the land. Other crops grew in importance and the produce of the farms became more varied. At the same time other forage crops became more general. Though many crops are being produced, the forage crops are still of particular importance and of these the hay and pasture crops remain of primary consideration.

Conditions in this province vary considerably. In many sections the con-

ditions favour special crops, a fact which is to a large extent being taken advantage of. The forage crops are, however, by far the most extensively grown, and of these the hay and pasture are the most important. In fact, the total area of hay and pasture in this province exceeds the total of all other crops. It must be realized then that though this province is favourably situated regarding many crops, at present the important crops, as far as acreage is concerned, are the forage crops and the greatest of these are the hay and pasture.

These facts being recognized it becomes quite obvious that considerable attention should be paid to the questions relative to the economic production of high yields. As other forage crops aside from the hay and pasture are becoming more and more important, attention should be given them also. This fact should be specially noted, as in many sections some of these crops are only now being introduced and throughout the acreage devoted to them is still limited. That being so, every effort should be made to start right. Attention should be given to the choice of the proper species, varieties, strains, and to the most economical cultural methods. Fortunately this fact is being appreciated, and some attention is being paid to the points mentioned. There is room, however, for much more work in this direction.

Strange as it may seem, there has been less careful attention paid to grasses and clovers than to other crops. This is a condition that should not exist.

These crops are closely connected with the livestock industry from the feed as well as from the soil fertility point of view. The farmer who is not specially a livestock man, but one who is conducting more of a general farm where cash crops are a feature, should also be interested in the hay crops, more particularly in connection with the question of soil fertility. It is obvious then that the entire question should be given by the farmer the most careful attention.

For the farmer to obtain the best results it is essential that the experimental farms and the agricultural colleges should carry on certain lines of work. In the first place there is a great need for information relative to the suitability of the different species of grasses and clovers to the several districts. At present practically the only grass grown in the province is timothy. Probably this grass is the best all round grass for the province. It is not necessarily, however, the best grass for all types of soil, conditions of drainage, and systems of cropping. To a certain degree there is the same need for the study of the different species of clovers.

At present timothy is timothy, and orchard grass is orchard grass. With livestock there are the different breeds; with grain, corn and potatoes there are the different varieties, the differences between which are being made use of.

But with grasses there is at present no choice of varieties. The same lot of seed is used for rotation or for a permanent pasture, for hay or for grazing. To a certain extent the development of late and early red clover is an improvement, but with the other clovers there is the same need for the isolation of varieties.

Lastly there is the need of more accurate information as to cultural methods, rotation, and manuring. All these factors are of vital importance in obtaining high yields and most certainly of importance in economical production. The choice of the right kind of grass or clover and the best variety is an important factor, at the same time good seed thrown by the wayside does not produce large crops cheaply.

It is seen that the forage crops and more particularly the hay and pasture crops are of considerable importance in this province. The needs of further study of these crops is emphasized. The methods of the past are not altogether successful now, and many have to be changed. Economy of production is becoming more and more important. That being the case it is obvious that only the most suitable kind of crops and only the best varieties of these should be produced. To these conditions should be added that of the best cultural methods possible.



Experimental Stations Doing Good Work

By M. B. Davis, B.S.A., Ottawa.

THERE are many experimental stations in Canada and Northern United States engaged in horticultural research work. Their one aim is the advancement of this industry, though their methods of achieving it are quite different. It was with a view to acquiring an intimate knowledge of what work is being done in this regard that the writer visited the many experimental stations named.

The following account will give the reader some insight into the problems being considered, and the results obtained at some of the more important stations:

At Vineland, Mr. Reeves has found that the factor of self sterility in raspberries is quite important. Many hybrids when selfed will not set fruit, even though the crosses are within the species *strigosus*, or between *strigosus* and *Idoeus*. This opens up the same question in connection with raspberries as we already have with apples and grapes, viz., yield as influenced by self sterility and affinity.

In the pruning orchard at Vineland evidence of how too vigorous heading back may lessen production was noticeable. In the summer pruned plots, where heading back in summer or other pinching back had been practiced, the trees had a bushy appearance, as side shoots had started from the bud adjacent to each bud pinched, thus showing that indiscriminate pinching or heading back in summer is not attended with the best results. The lesson from these experiments points towards

as little pruning as is possible to maintain the shape and good crotches in the tree.

From Vineland to South Dakota.

In passing through South Dakota one is bound to wonder how anything in the fruit line can succeed in the open prairie lands, and yet after a visit to the grounds of the state college at Brookings, one wonders why more fruit is not grown. Dr. Hansen through his untiring efforts is developing pomology for South Dakota which will at least give every farmer a supply of fresh fruit at his own door.

I was particularly interested in some blight resistant pears that Dr. Hansen was working with; these were *Pyrus Usuriensis* and *Pyrus Chinensis*. There were trees of these about 18 years old which have proved quite blight resistant, although other varieties in the same row were practically killed by blight.

In handling his sand plum hybrids he has adopted a different system of pruning than is generally used with plums. The system is a renewal once in every four years. This is accomplished by growing four main leaders from the ground and cutting one out each year after it has fruited, and allowing it to be replaced by a younger leader, then the following year another old leader is removed so that in no case is there fruiting wood older than four or five years. As these hybrids all fruit on wood of one year in age this system works very well.

From South Dakota a long leap to Minnesota is made, and the traveller

finds himself once more in a region where adjoining the lakes, large quantities of the tenderer varieties of hardy fruits can be successfully grown. The fruit breeding station of the state is situated some 30 miles from St. Paul at Zumbra Heights. The Agricultural College and Horticultural Headquarters are at St. Paul.

Dr. Dorsey had some particularly interesting work in the heredity of the factor for hardiness worked out from data on hybridizing plums. Considering his crosses and reciprocals between the species *Prunus nigra* and *Prunus triflora*, his analysis shows that the majority of the trees from the Nigra X Triflora were perfectly hardy. In other words, in this cross hardiness was dominant, only a small percentage being tender like Triflora. On the other hand Triflora X Nigra gave a large percentage of trees very little hardier than Triflora and only a small number that were as hardy as Nigra. This indicates that the female parent carries the factor for hardiness more virulently than does the male, although there is the possibility in the reciprocal of obtaining a different combination of characters together with hardiness.

Dr. Dorsey also explained his recent work in connection with the cause of poor setting of fruit on plums. In this connection he produced some hundreds of slides, showing the pistil and pollen at different stages of fertilization. His results show that fertilization, to be successful, must take place early, when the blossom opens, as abscission takes place in the pistil about twelve days after the buds open, regardless of climatic conditions. As it takes the pollen grain about ten days to penetrate to the ovary and bring about fertiliza-

tion, pollination which takes place late in the blooming period is abortive.

Urbana, Illinois.

The next stop was Urbana, Illinois. This was by far the largest thing in the horticultural line visited. Four hundred acres are devoted to horticultural work, over one hundred being in orchard, the largest part of which is devoted to the study of the transmission of characters in the apple. For this purpose a large number of crosses between our ordinary orchard varieties and different species of *baccata* have been made; the reciprocals of these have also been made. Many of these are now fruiting, but as yet nothing has been worked out which is of any value. From their work to date they have noticed little difference in the tree characters of the cross and its reciprocal.

The organization of the horticultural work at Illinois appeared to be excellent. The head of the division has on his staff chemists, pathologists, entomologists and plant physiologists who investigate only horticultural problems in co-operation with the practical horticulturists on the staff. The head is thus able to bring about co-ordination of all work in horticulture, and there exists an excellent state of harmony throughout the whole department.

In their spraying work they have found that lime sulphur gives less injury than Bordeaux and that the dust in a bad infestation does not control scab as well as does the liquid.

Wooster, Ohio.

At Wooster, the orchards with the sod mulch were particularly interesting. They appeared to be in excellent condition, fully as good as the orchards treated with clean cultivation or cov-

er crop. The size, colour and quality of fruit appeared to be equal to that of the other orchards. The orchard in sod, without mulch, however, showed a decided lack of vigor in the tree and a lack of size in fruit.

The system is to follow intercropping for the first few years of an orchard's life, after which it is seeded down. If the amount of grass grown under the trees is sufficient when cut to make a heavy mulch no further material is used, but for the first few years of the system it is imperative that material for mulching be hauled to the orchard. After a good mulch has been created the grass growing in the centres of the rows is sufficient to maintain the mulch when mowed and raked under the tree.

The results from this orchard seem to justify the sod mulch theory, but, as is clearly shown by their "sod" orchard where no material has ever been added, the success of the system is entirely dependent upon the maintenance of a heavy mulch. In their fertilizer experiments their work with peaches practically corroborates the work of Alderman in W. Virginia. They have had poorer results from their potash plots than from the check plots. In the case of apples potash has not given any results.

Among their varieties of grapes two were noted as especially good — King Phillip and Eclipse. Both of these are worthy of trial in Canada.

Geneva, N.Y.

The Experimental Station at Geneva is our next stop. We spent the afternoon in the vineyard going over their European varieties and their crosses between *Vinifera* and *Labrusca*, with the latter as female parent. It is worthy of note that among these crosses the

Vinifera seems to have exerted very little influence and from among some few thousand seedlings only a few show signs of influence from the *Vinifera* parents. Station Seedling No. 939 is one of those few and is a particularly fine grape, resembling Flame Tokay in appearance. Among the *Vinifera* varieties themselves Golden Chasselas is the one found to be reliable to ripening, with Ligman Blanc a possible second. They recommend their Ontario grape as an early white grape of good quality. Roseki, a large white European grape which ripened there this year impresses one with its quality and also with the fact that the birds leave it alone. This variety should make an excellent parent in breeding work.

In their pruning test with pears, plums and apples very little difference could be discerned, except in the case of King of Tompkins, where those trees, which had not been pruned to any extent, were much more straggly than those pruned moderately heavily. These latter have been trained to a more upright and compact habit of growth. This eliminates to a large degree this undesirable feature of the King tree.

Amherst, Mass.

We then went to Amherst and spent a day with Dr. J. K. Shaw. Dr. Shaw's work on Stocks is particularly interesting, as he is growing a number of commercial varieties of apples on their own roots and on a number of other known roots as well. The effect of the Duchess as a stock was particularly noticeable. In nearly every instance trees grown on this stock were undersized and lacked vigor. The only variety which seemed to have affinity for Duchess stock was Tolman Sweet. McIntosh does particularly well on its own

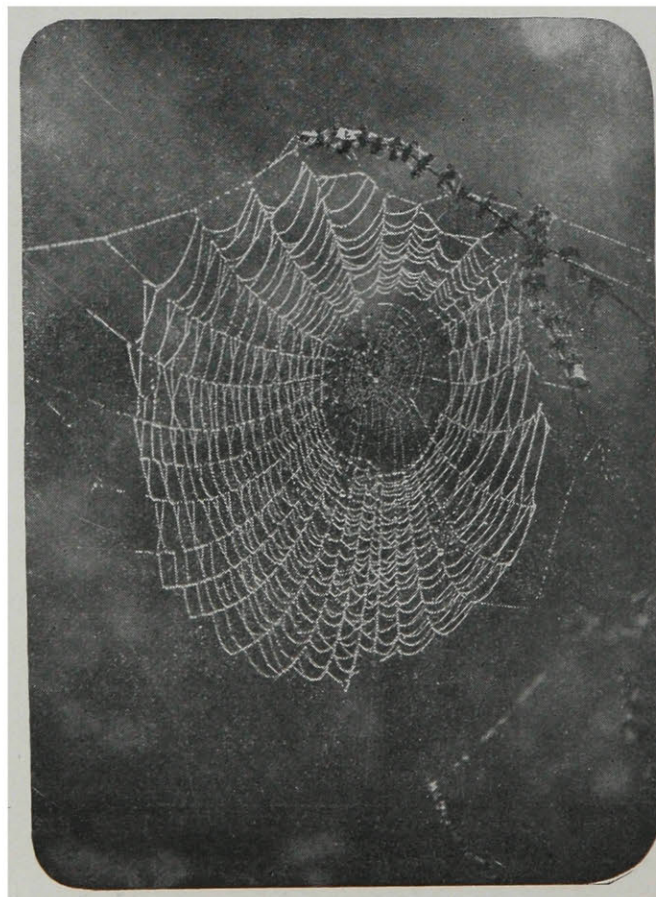
roots and the scions root quite readily. Yellow Transparent gives excellent results as a stock for McIntosh. These were the outstanding points of note.

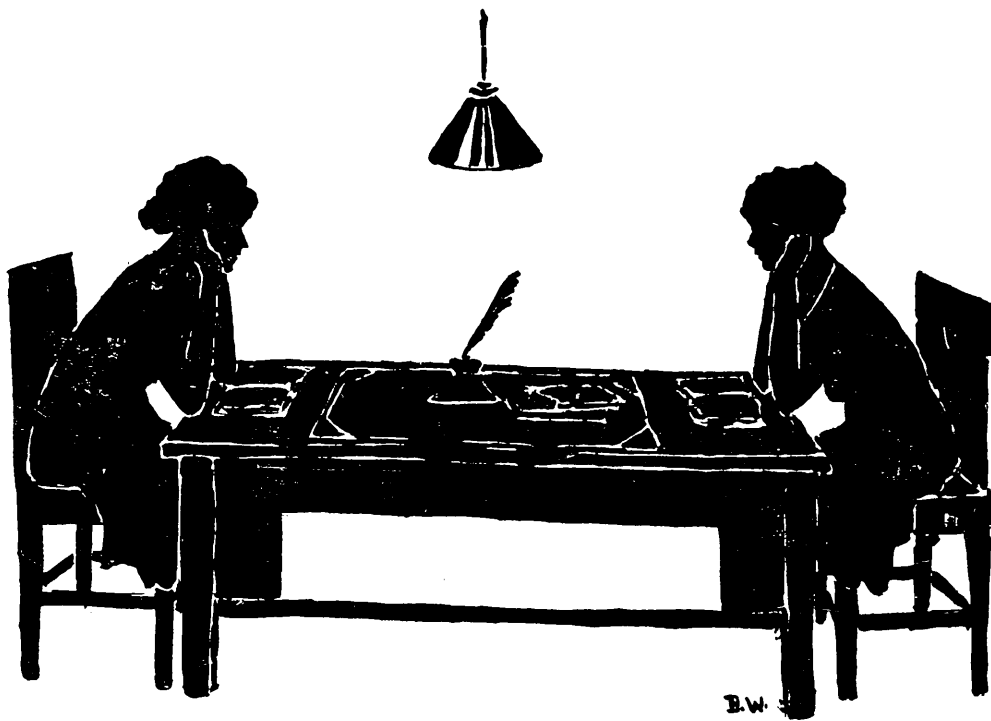
In the pruning orchard little results have as yet materialized, as the trees are just beginning to fruit. The experiments here do not include summer pruning, but merely degrees of winter pruning and different methods of tree training. The one point of interest at present is the difference in crotch formation of varieties like Wealthy when cut back into one-year wood and cut back into two-year wood. Wherever these types of trees had been cut back annually into one-year wood the crotches were very angular and weak, but when cut back to two-year wood, by which time the angle of the bud had been determined, the crotches were less

angular and very strong, thus giving a good lesson in the handling of these naturally weak crotched trees.

In a ringing experiment an increase of fruit could be observed from trees ringed early in the season, whereas trees ringed in the later part of the season showed no benefit from the ringing. This increase in fruit, however, was attended with a lack of vegetive vigor.

As a result of our observations, we are convinced that the experimental stations are working hard to further the interests of horticulture. Already much good work has been done and much more is under way as indicated in this article. It remains for the fruit-grower to keep in touch with the experimental station in his locality, and the pamphlets issued by other stations, if he would be up-to-date in his practices.





School for Teachers.

Social and Civic Development Through The School

By Dr. H. D. Brunt.

I INTERPRET my subject in this way, the social and civic development of the child in the school. What can the school do in its regular hours for the development of the child? I apologize for lack of definiteness as regards this subject and the way it must be considered. It is hard to give wipes, for what applies to one school does not apply to another, and in this discussion I have in mind the city school, I fear, rather than the rural.

Institutions were made for man, not man for institutions. The public school is the property of the public, not of educators and teachers. If the public is clamorous for a change, then it is not a part of the work of teachers

to stand in the way of the needs of the public. When these needs become very pronounced then the school, like every other public institution, must adapt itself to the circumstances.

The question I ask, then, is this, what are some of the social and civic problems the school and teachers can do something towards solving? G. K. Chesterton has said, "Everything matters except everything." We fail to see the ideal because of the daily tasks and detail which seems the all important to us.

The first problem is this: because of the great division of labor and the progress of machinery in our modern industrial world the craftsman has

disappeared. Men have not the opportunity or the inclination to be craftsmen. No longer do they take the same pride in producing a finished piece of work. This is due to a change of systems, to the change from craftsmanship to factory division of labor, the workman now works for his daily wage. His joy is not in his work, in the finished article. Go to some of the great cathedrals of Europe and often the finest work will be found in the darkest corners where only careful search will find it. The craftsman took a great pride in his work. This is not so in these days of great and hasty production.

An attempt to remedy the state of affairs has been made in our technical classes, but while these do good they tend to the end of better pay and shorter hours to enable men not so much to do better work as to earn larger pay. This sort of thing is necessary but does not result in the craftsman who creates. The dignity of the craftsman is not sufficiently insisted on. The advice given to men is: Continue at school so that you may go into offices rather than trades. No emphasis is given to the dignity of labor. While we do not want, as in Germany, a laboring caste, we do need something to awaken in the minds of our boys the idea that labor is dignified, and that a trade requires as great intellectual ability as a profession. A wealthy merchant had a son who wished to become a machinist, but owing to the father's opposition he has become a merchant, an occupation which he detests and in which he his life is quite unhappy. The father is an example of the class which regards a clean handed profession as more dignified than a trade. More em-

phasis should be placed on the dignity of a craftsman.

I am a dyed-in-the-wool suffragist, but one thing gives me pause, when I hear public women say that only votes for women will straighten matters out, especially the relations between employers and employees. I have to think of the domestic service problem. No other branch of labor has been so signal a failure and in this, too, women have had sole sway. Why? There are various causes, social, political, psychological, but the principal is the lack of the feeling that there is a dignity in labor.

A third point I insist on is that, on the part of our professional men, supposedly the leaders of our national life, there is an almost total lack of knowledge of craftsmanship; of what it means to work, to make the hand obey the eye, and to both obey the mind. It was a college commencement day, everything was prepared to make it a day long to be remembered. A noted speaker, President of a University, was expected, when the time came he arose, picked up a silver fork and asked the students, "Can you make that?" A filigree basket and said, "Can you do this?" "Can you weave this damask table cloth?" "Is there anything here you can make?" "You are going out from College expecting to lead the men who can do these things, you are trying to understand the men, who can do these things."

Then the speaker drawing himself up and speaking with the greatest reverence said, "Jesus of Nazareth, can you do any of these?" and speaking for the Master, "Yes. I could make the table."

To summarize: (1) Craftsmanship has practically disappeared in our

modern world. (2) The dignity of craftsmanship is not insisted on. (3) The leaders of public life do not understand at first hand what it is to be a craftsman, and what his problems are. What are the solutions? One or two things the school can do. First is the refusal of teachers to accept shoddy work. The pupil should be an artist as well as an artisan and this comes from making it necessary that his work be good. We should all be as insistent on good work as we find our teachers of manual training are. Secondly, the schools can use the constructive instinct in all grades of the course.

Some handicraft work should be insisted on. The boy should think of a thing and then produce it by his own hand work. From this will result, (1) the actual training in workmanship; (2) a strong cultural development. As regards this second result we cannot too often associate all that produces skill with culture, for this skill when attained has two elements of culture, its mental and moral side. More and more one must remember, that craftsmanship, ability to produce things with our hands, has great dignity and worth. Thus the children learn to have pride in their own work and that there is nothing to be despised in it. It will serve some purpose if by this teaching of handicraft we can stop the desire of all to rush into clerking, banking and the professions.

The other day a man who wanted to send his boy to college came to me about this matter, I said to him, "Your boy is better in trade and will do more and succeed better there than anywhere else."

Girls by Domestic Science will learn to be more useful in whatever posi-

tions in life they may hold. The woman in the home is almost the only hand manufacturer left. In her we have the last craftsman. Girls should realize the dignity of such work.

Another result of this machine age is that the boy becomes an industrial cog. In a manufacturing company I found a man holding an iron bar against a machine from the other side of which came out finished nuts. This was his only work, day in, day out. No wonder the iron entered the man's soul.

We must educate people for leisure. The hours of work are decreasing. We want technical training such as we have, but we also must educate the worker to employ his spare time. The school plants are closed to them during the evening hours when he is free. The boy can hardly be blamed for loafing on the corners. The child must, when in school, be taught just how to read and what to read. The power to read is opening up the wisdoms of the ages. We must make the children realize this. It is our task. The children must learn that there were such men as Raphael and Michael Angelo who lived and painted great pictures and carved great statues. They should know that they can buy copies of these for a cent or two. There is no reason, for example, why the treasures of English poetry should not be available to him, who toils in trades. The man holding the iron bar against the machine should not be only a machine, but a man with his mind stored with gems of literature. The child too, should have a hobby for his spare minutes. To sum up we must correlate the shops and the school.

The Teacher's Opportunity

By Campbell Amaron, T. '20.

AT the close of every great war there comes the period known as the reconstruction period, and the greater the war, the greater must this reconstruction be. Much of this work depends upon the individual, and one person who is in a favourable position to further it is the teacher.

The reason for this is plain. The teacher is in constant contact with the pupil, and is able to help make a good citizen out of him. There are many ways in which this may be accomplished but we shall only consider a few of them.

Firstly, by developing in the pupil a feeling of sincere patriotism. Show him that to be patriotic does not merely mean flag waving, but being willing to make sacrifices and work for one's country.

Secondly, help him realize that very shortly he will be called upon to be a leader, or to support one, and that it is essential for him to become acquainted with the method by which his country is governed. If he is shown the evils of a corrupt government, he will, in time, do his best to abolish the corruptness.

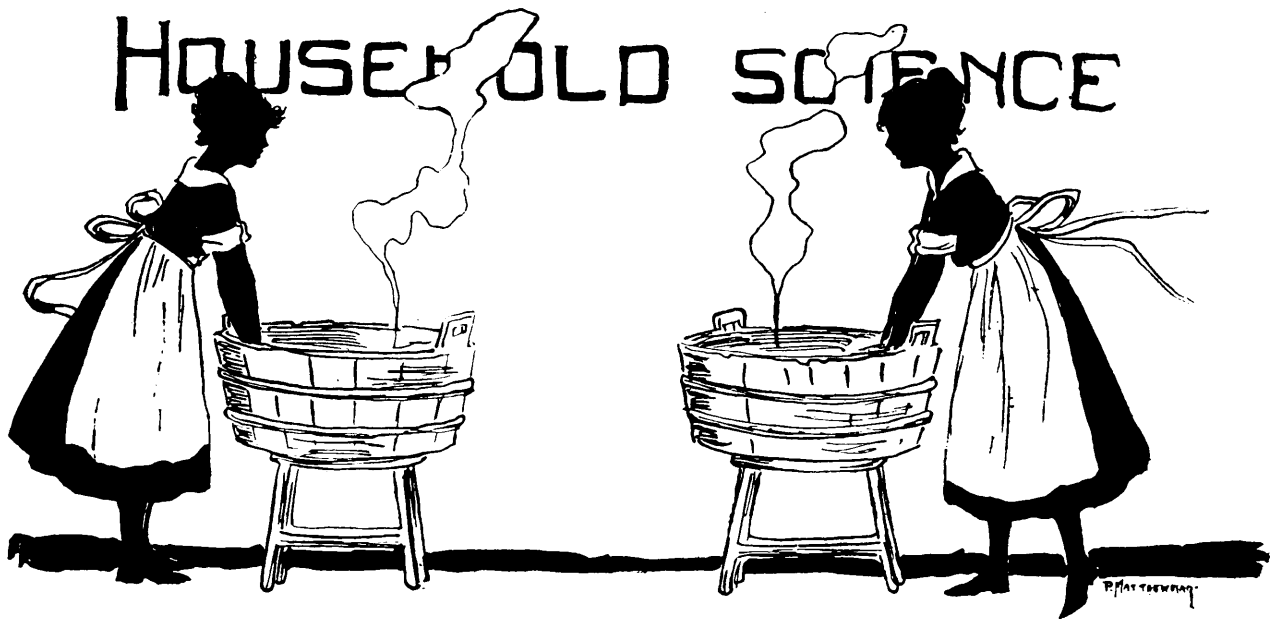
Thirdly, train him morally. Show him the value of being honest in his work, and in his play. Encourage him at all times to tell the truth, and also train him in matters of religion.

Fourthly, encourage thrift. This is

a thing that is often neglected in our schools, although it is vastly important. Were you not amazed by the great amount of wastage that was revealed to us, during the war? A great deal of this is even going on today, but it may be checked if the pupils do their share in stopping it. The Government is helping by encouraging the pupils to buy Thrift Stamps, but it is the teacher's duty to show the value of buying these stamps, and the benefit the pupil will receive. How many upper school pupils keep an account? Very few, and yet, this would help promote thrift quicker than anything else. If the pupil once realizes the value of being thrifty, he will very soon acquire the habit.

Fifthly, and finally, plan the work of the class, so that it will be interesting, and not dull, as so much of the school work is today. If the lessons are made to appeal to the pupils, they will quickly learn them, and take an interest in them. The whole spirit of the class-room should be one that aims at making good citizens out of the pupils.

There are many other ways in which the teacher may help the pupil, but these five are, perhaps, amongst the most important. If these points are brought home to the pupil and are carried out, we need not fear for the future of our country, because the boy of today is the man of tomorrow.



The Home and The Labour Problem

By Miss A. E. Hill,

Head of School of Household Science.

ON every side to-day we hear the Labour Problem discussed. In our magazines we find each phase of the question dealt with; the Press not only reminds us of it in its editorial page, but we look daily—one may say often anxiously—through its columns to learn what new demands Labour is making, or how one of its problems is being solved. If an inhabitant of Mars found himself suddenly transported to this earth of ours he might be forgiven if he were to conclude that we were governed by Labour Congresses and that our National fate revolved around the word Labour.

Every part of our National life has felt the effect of this problem, and naturally the home could not escape. For many years it has been appreciably felt there but more particularly of late, so much so, indeed, that the more thoughtful consider it a most serious question because of the effect it is having on our present home life and what it may portend for the future. Many people are so situated that they do not

find it possible to carry on their homes without assistance and, when this is not forthcoming, give up the home. Others, feeling that they cannot undertake the responsibility of a home without the assurance of a certain amount of labour, and rather than run the risk of being without it, make their home in a hotel. Still others—less fortunate some may say, but we shall leave that for the reader to decide—cannot see their way clear to dispose of their home and live in club or hotel, and not having the desire or initiative to devise a way out of their difficulties, struggle on under conditions which are not conducive to the creating of that atmosphere which we say makes home. The fact remains that all three groups are losing out of life that which is fundamental and indispensable in the building up of those standards and ideals so necessary to the individual, the family group and the nation. And, if the problem is not a temporary one, but one which has become part and parcel of the most vital side of our social life, why not let us

face it squarely and see what can be done? Surely the home is worth our effort!

In this article we shall not attempt to "solve" this problem, or to discuss it in all its phases, but only undertake to make three suggestions which might prove helpful to some, and all of which we hope might be applied in any home. Some of our readers may think that the first suggestion should be the introduction of the "Labour-Saving Device." However, we must ask them to bear with us when we say that we do not think that this is the first thing to be considered. We would rather suggest "Family co-operation." Let each one of the family have his or her own definite part to contribute to the running of the Household Machine; very simple, very small, perhaps, for the wee members of the family, but none the less necessary for the creation of that comfortable, restful air, so inseparable from home. As a result each member would feel as if he were a real factor in the carrying on of the home activities, and at the same time would be learning how to work with others, an art which would be of inestimable value for the future. Family co-operation! Unselfishness, independence, initiative, esprit de corps, are some of its advantages to the child. To the parents it brings not only the rewards of these characteristics, but causes the dwindling in a miraculous way of that mountain—"The Labour Problem."

And what shall we offer as a second suggestion? A little more time spent in planning! How the work shall be done; when it shall be done; the arrangement of equipment and materials so they may render their maximum of value, with a minimum of effort on the part of the individual. There is an old

proverb which might be altered as follows, "Think twice before you act once." If such an adage were considered, there would be a more definite outline of duties found in our homes; there would be better arrangement of equipment with more consideration for its proper placing with relation to light. The correct height for working surfaces would receive attention, and there would be more thought given to time and motion study. The one in charge of the activities of the home would find that in addition to her many other accomplishments she had become a member of that body of experts who have done so much to turn physical effort from drudgery into a science of motion—the efficiency engineers. And what would be the result? More work would be accomplished, better results secured with less expenditure of time and energy. Members of the family upon whose shoulders the tasks were heaviest would be less fatigued and have more leisure time for other family interests. We ask: Is it worth the effort? The family can answer this best.

And now let us bring the labour-saving devices to our aid, but let us be sure it is a labour-saving and not a labour-making device. Some are so complicated, or are so difficult to care for that they make as much labour as they save. Nevertheless, there are many, many devices which give excellent service and save much effort. There are two things which it is well to remember in connection with labour-saving devices. First, give them a fair trial, and be quite sure they have been used as directed, and for the purpose for which they were intended. Secondly, see that they are placed or used where they can give a maximum of efficiency, other-

wise they may become labour-making devices. Furthermore, an article need not be an expensive, complicated, power-driven machine to be a labour-saving device. If we spend a little thought on how we utilize what we have, and also consider the condition in which our tools are kept, we can contribute largely from our own store to our group of labour-savers. We shall mention one device which all may have — Sharp knives(?).

So much for these three suggestions, but what about the Courses offered in Home Economics in our colleges? Are they meeting the demands of the present day and teaching students how to meet this problem? Apart from the work which is given in the lecture room or laboratory they are providing practice houses where students may have an opportunity of carrying on house-keeping activities themselves. To-day these practise houses are being modeled on the plan of family co-operation. A group of students living in the house,

under supervision, carry on the activities of the home, each one having some definite responsibility. The value of this arrangement is more readily appreciated when one realizes that the students participating attend all, or practically all, lectures and carry on their regular college work at the same time. It means not only that there must be a sympathetic bond of interest among the students thus engaged, but it means careful planning of work and equipment and the employing of the best labour-saving methods and devices so that the home may possess all the qualities which we demand it should, and yet allow the students to carry on their regular work as usual.

Let us study this question thoroughly, but with a good heart, and may it be our aim to keep secure that greatest stronghold of the nation, of which we as Britishers like to say, "The wind may blow through it; the storm may enter; the rain may enter, but the King cannot enter"—the Home.

"Cooking"

Ask a woman what cooking means. It means the patience of Job and the persistence of the Pilgrim Fathers. It means the endurance, the long-suffering and the martyrdom of Joan of Arc. It means the steaming and stewing and the baking and the boiling, thrice daily, springs, summers, autumns and winters, year after year, decade following decade. It means perspiration and desperation and resignation. It means a crown and a harp and a clear

title to an estate in heaven. From her judgment and reason she must evolve triumphs and depend on salt and pepper and sugar and herbs. She must know how soon, how long and how much and how often. She must know quality and quantity and cost. She must serve the butcher and the baker and the candlestick maker. Then she must rise above it all and be a lady and a loaf-giver.

Experiences of a Macdonald Household Science Graduate on the Serbian Front

THOUGH in past years Household Science students have been fortunate enough to hear speakers of great renown and wide experience speak upon topics of great interest, yet we believe we may truthfully say for all, that never before have their minds and hearts been gripped as they were on Monday afternoon, when Miss McCall, of the Scottish Women's Hospital, spoke to them.

Miss McCall, who served for 22 months with this hospital in the war-racked country of Serbia, told of her experiences from the day she arrived at Salonica to the day when the armistice was signed.

Although 80 miles from the fighting, the guns could be distinctly heard in the city. The hospital was established on the shores of a most beautiful lake, and work began. Miss McCall was the driver of an ambulance. From the battlefield the men were brought for about 47 kilometers on mules and sometimes by ambulances. After this they came a few miles by train, till they arrived at the hospital wearied and in very bad condition on account of their rough journey. All the time that the work of healing was going on, the German airplanes were sailing low down over the camp. Fortunately for the hospital, it was situated at some distance from the headquarters and escaped notice.

The patients treated included Russians, Serbs, French and an occasional Italian. Miss McCall said that she always felt very sorry for the Russians, because at that time everyone was

against them, seemingly forgetting the part they had played earlier in the war. Officers told her that at one time they were so poorly equipped that they had but one rifle for every three men, and when a charge was made those who reached the trench alive had only their bare hands to fight with, and that they were mowed down by machine guns while their own guns were sending out shells very often loaded with ashes. At that time two million had been killed and three million wounded, and they could neither send word home nor receive word from their home folks.

In describing the hospital, Miss McCall drew very graphic pictures of the trouble they had with their tents. They slept four in a tent, with just room enough between the beds to move around in. Their kit-bags were kept underneath the beds.

After three months spent at this lake, they moved further up toward the front. Here they drove to the foremost dressing stations and thence took men to the hospital, which had been set up in a valley. On account of the terrible danger which they were in here, the British command objected to the women doing the work at all, but since the hospital was not under their control, it stayed until it moved on with the offensive to Belgrade.

The country was very mountainous, and every trip made from these dressing stations was perilous. After the men had come down the mountains for about fifteen miles, loaded on the backs of mules, and very much exhausted, it was the duty of the ambulance drivers

to finish the trip to the hospital over roads scattered with boulders, only wide enough in most places for a Ford to pass, with deep ruts and few passing-places, and with sheer precipices anywhere from 750 to 2,000 feet in height on one side. Miss McCall told one very exciting story of a trip she was making with two wounded men in the car, when she lost control of the brake and could not stop. Her only hope was that there would be a clear road ahead, but instead of this there were another ambulance and a team of oxen at the next passing-place. The best thing that could be done was to run the car into a boulder that jutted out from the side of the road. This caused the car to overturn, but by some Providence it did not roll over the precipice, nor did it run into the other car.

The day's work for these women was somewhat as follows: After arising and washing (if there were any water to wash in) they breakfasted upon a two-inch square of toast, one sardine, and for an extra a teaspoon of jam. With that they started up the hill for the wounded, and arrived back about noon, coated with dust and terribly hot, since at times it was 120 degrees in the shade. After taking off their things and having a little wash, they would lie down in the huts for a short rest, after which they had a dinner of half a potato and a little meat.

In the summer of 1917 the camp was moved up to a wooded hill, so as to save miles of mule travel for the men. Here they were but five miles from the batteries below, and could see what looked like a wonderful exhibition of fireworks every night. They lived in bell tents, which acted very badly in a wind, sometimes heeling over and exposing the inmates to the rain and cold.

In winter they lived in the clouds and in such a temperature that in the mornings the water in their hot water bottles would be frozen. Here also they were menaced by wolves and wild dogs, which used to be so bold as to walk through the camp. To make the work harder, scurvy broke out among the Serbs after the winter of poor food and very cold weather. Besides this, there were dysentery and malaria, but in spite of it all, when word came to the army that they were to advance, not a man would leave, whether ill or not.

As the hospital advanced with the army, they saw many piteous sights. People exiled from their country for three years were wandering back, kept going only by the thought of being home once more. The villages passed through all showed evidences of the terrible cruelty of the Bulgars. The furniture had all been removed, each officer having been allowed to send a carload of loot home, and each man ten pounds of food a week to Germany, Austria or Bulgaria. At every mile they found some pitiful sight.

At last the day came when the armistice was signed, and the chief of staff telephoned down. The women went around the country telling the people, but there were absolutely no demonstrations. On every side they were asked for news of this son or that brother, and in most cases could give no hope.

The wounded, the old men, women and the little children commenced to move homewards. When the wounded were given their release, they were handed ten centimes and a loaf. These were to keep them alive on a journey of 800 miles. They marched knee-deep in mud and in the bitter cold. Miss McCall said that at night as she lay in

a village billet she could hear what sounded like the whispering of leaves. It was these poor people crouching behind the houses, trying to find some shelter from the cold.

A wonderful tribute to the Serbian "Tommy" was paid when Miss McCall said that never in all the two years she had served had any of these women suffered any sign of disrespect from any of the men.

Miss Hill, head of the School of Household Science, thanked Miss McCall very heartily for her great kind-

ness, and surprised the girls by telling them that they had the honor of hearing one of Macdonald's graduates. It was privilege enough to listen to Miss McCall speak, but to learn that one had the honor to belong to the same school as one who had done such marvellous work was honor beyond words. It was an inspiration to the school, and many felt ashamed to think of the little troubles they had and resolved to live more as Miss McCall has done, with "Mastery for Service" ever in their minds.—Grace McOuat, Sen. Sci. '20.



HOUSEHOLD SCIENCE SHORT COURSE,
AUTUMN, 1919.

The Sewing Class

In the Domestic Science Course the students enjoy the sewing class perhaps more than any other. Many of the girls who, before coming to Macdonald, didn't know one stitch from another, are now quite expert in this line, and can do many fancy stitches as well as the ordinary ones.

In this class the students are taught how to make many articles of clothing and also how to run a sewing machine. Some of the girls had an idea that a machine was as difficult to run as a Ford, but they soon mastered it, and often get severely reprimanded for exceeding the speed limit.

During the Fall Term the girls have completed several articles including two pieces of lingerie, an apron, a summer dress, and each girl has made a winter hat.

Miss Hibber, teacher of dress-making and millinery, sets a day upon which each garment is to be handed in, and if it is not on that day, marks are deducted; in this way every girl has her work up-to-date. The girls do their own shopping, which is quite an experience, as they learn the names of the different materials and their prices, and also how to read a pattern, which is as difficult as a problem in geometry.

The sewing class is so interesting that time passes quickly, because the girls are always anxious to finish their problems on time. Four periods each week are set aside for sewing, and in one of these, millinery is taught. The different stitches used in making hats are learned, and one hat is completed each term.

H. M., Sci. '20.



-- Faculty Items --

THE November and December meetings of the Macdonald College Club were both devoted to music. On November 20th, Mr. George M. Brewer of the Dominion College of Music, Montreal, gave a lecture on Debussy's "Pelleas and Melissande" with illustrations on the piano. On December 12th, a concert was given by senior students and junior members of the staff of the McGill Conservatorium, those taking part being Misses Lemon-tagne, Leach and Huffman and Messrs. Anderson and Katz.

Principal Harrison addressed the Ormstown Farmers' Club on November 7th, and Dr. Savage spoke to the same club on December 7th.

Prof. Lochhead attended the annual meeting of the Ontario Entomological Society at Ottawa, November 6—7.

Prof. Dickson attended the meeting of the Canadian Phytopathological Society in Guelph, December 12—13.

Prof. Lochhead gave an address at Bishop's Crossing on the occasion of the distribution of School Fair prizes.

Dr. Shell attended the annual meeting of the Association of Official Agricultural Chemists in Washington, November 17-19, and presented a report, as Associate Referee on Maple Products. The Association tentatively adopted the "conductivity value" test and the "Canadian lead" test for purity of maple syrup and sugar; the for-

mer test originated in the Macdonald College laboratory, and the latter in the Food and Drugs Laboratory at Ottawa.

Mr. H. S. Hammond, B.S.A., Lecturer in Chemistry, has resigned to accept a position as Chemist of the Peerless Cereal Mills at Woodstock, Ont. Both Mr. and Mrs. Hammond were on the original staff of the College, and their going makes another break in the "Old Guard." The best wishes of the staff and students of Macdonald College will go with Mr. and Mrs. Hammond.

Prof. J. B. McCarthy, M.A., of King's College, Windsor, N.S., has been appointed Assistant Professor of Chemistry. Prof. McCarthy is a graduate of King's College and has also studied at Harvard University. He has a high reputation as a teacher of Chemistry. He is also a good gardener and has managed the College Farm at Windsor for some years.

Dr. A. Grant Lochhead has resigned his position in the Bacteriology Department and has been appointed Bacteriologist and Chemist of the Canadian Milk Products, Limited, Toronto. On December 2nd Dr. Lochhead married Miss Helen L. Van Wart of Fredericton, N.B. Though Miss Van Wart was at one time a student at Macdonald College, the match was—to use Dr. Lochhead's own expression—"made in Germany," while she was studying music in Leipzig.

Mr. A. E. McLaurin, Extension Animal Husbandman, has resigned from the staff of the Stock Farm to accept a position in the Sheep and Goat Division of the Live Stock Branch of the Dominion Department of Agriculture. Mr. McLaurin's territory will be Eastern Ontario, and he will make his home at Vankleek Hill. While at Macdonald College Mr. McLaurin has not only done good service to the Live Stock industry throughout the province, but has taken an active interest in musical affairs amongst the students.

Prof. A. A. MacMillan of the Manitoba Agricultural College, formerly in charge of Sheep Husbandry at Macdonald College, has been appointed Chief of the Sheep and Goat Division, Live Stock Branch, Dominion Department of Agriculture.

Miss Mary Brumell, who completed

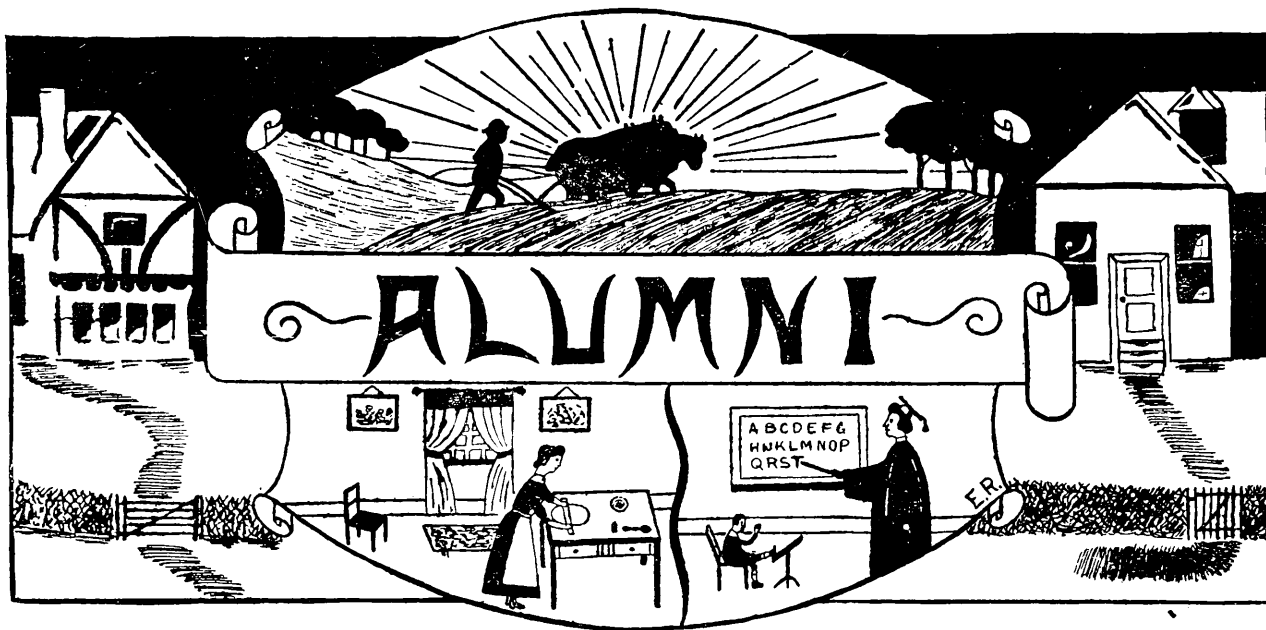
her course in Institution Administration last year, has been appointed Assistant Housekeeper in succession to Miss Nan Garvock.

At the winter meeting of the Quebec Pomological Society, Prof. Bunting gave an account of the experience of the College in apple growing, Mr. Ricker took part in a symposium on observations in the orchard during the past year and Prof. Dickson gave a paper on the black currant in relation to the White Pine Blister Rust.

Prof. B. T. Dickson represented the College at Queen's University on the occasion of the inauguration of Mr. E. W. Beatty as Chancellor and Dr. Bruce Taylor as Principal.

Mr. N. Birks, Ste. Anne de Bellevue, has been added to the office staff of the Soldiers' Civil Re-establishment Department.





Undergraduates' Alumni

THE agricultural undergraduates who returned to Macdonald from overseas seem to be well pleased with the change of life. They had some difficulty in getting down to the routine of study after the open air life, but judging from the midnight oil burned during the recent exams, they seem to have overcome that.

Another returned man joined the ranks of the students in December—Franklin Dogherty. He is at present taking lectures with the third year.

The undergraduates who did not return to Macdonald have kept very quiet. The alumni editor would appreciate receiving news from any one of them.

We have heard from several, however. J. R. Spendlove '17, wrote us from Katevale, Que., saying that he could not expect to visit the college at present as he was tied down hand and foot with work, but sent best wishes to all the boys.

Bill Buckland '18 hopes that the next time he visits the college he will have more time to swap yarns with the fellows.

Miss Mary Lee MacAloney, '20, has been forced to leave the college through illness. She has returned to Nova Scotia, and we hope that under the tonic of her native air she will make a rapid recovery, and return to us next term.

A. W. Griffin, '21, writes occasionally to his old friends at Macdonald. He is enjoying his work in the West Indies, but misses the bracing climate of Canada.

We are pleased to announce the marriage of Hobart Birks, an old '18 man, to Miss Parker of Lennoxville. The marriage took place at the home of the bride some time during the latter part of November. Hobart and his bride paid a short visit to the college on their way to California, where they intend to spend the winter. We join in extending our hearty congratulations.

Teachers

Miss Marion Watters of class '15, one of our stars in gym. work, now married to Mr. S. J. Scott, paid a recent visit to the college.

Miss Dorothy Davidson, of the Model Teachers' Class, '16, is teaching in the Royal George School, N.D.G.

Miss Mary MacPherson is principal of Matapedia Model School.

Amongst recent marriages is that of Miss Edna MacLeod, a graduate of class '15, to Mr. Frank Corey, Stanbridge East.

Miss Eunice Caldwell and Miss Reta Jacobson are both doing good work in New Carlisle Academy.

Miss Chris Sherman is now teaching in Aberdeen School, Montreal West.

Miss May Robertson, who graduated in 1917, is now married to Mr. Willard MacLean and is residing in Montreal.

Miss Greta P. Copland, who graduated last year, is teaching in Riverside School, Montreal.

Miss Marion Scott, of class '15, has given up teaching this year to do work among the returned soldiers.

Miss Helen Bechervaise, of the Model class '18, is in charge of Port Daniel Model School.

The marriage of Miss Edith LeGalais, who graduated in 1915, took place on July 14th to Mr. G. Worth, of Elmira, N.Y.

Miss Alice Bothwell, of the Model Teachers' Class '17, is teaching at present in Riverside School, Montreal.

Miss Marion Walsh, one of our last year's graduates, has not been able to begin teaching on account of illness, but hopes to do so in Kensington School, very soon.

Another marriage, which took place last February, was that of Miss Pearl Scott, of class '14, to Mr. W. Ladd, who had just returned from the front. They are residing in Scotstown.

Miss Katie Murray, who graduated in 1916, is now Mrs. Arthur Carter, and is living in Knowlton.

Miss Elsie Dewey, of class '17, teaches in Fairmont School, Montreal.

Miss Francis Remick, one of the graduates of class '15, is the principal of Scotstown Model School.

Miss Mary Bisson and Miss Stella Robison, of the Elementary Class of '17, are teaching at Port Daniel West, and Shigawake respectively.

Miss Jessie Lavery, of '19, is teaching in Aberdeen School, Montreal.

Miss Daisy Cooke, of class '17, is teaching at Lacolle, Que.

Miss Edith LeMesurier and Miss Winnifred Journeau are teaching at present at Barachois West.

Household Science

On December 2nd, 1919, the marriage of Miss Helen Van Wart to Dr. Grant Lochhead took place at the bride's home in Fredericton, N. B. The honeymoon was spent in Montreal, and Dr. and Mrs. Lochhead have gone

to make their home in Toronto, where we wish them every happiness and all success. Mrs. Lochhead was a MacDonald Short Course Science student in the Fall of 1917.

Miss Eleanor Fowles of Science '17

we hear has successfully completed her first year's training in the Western Hospital in Montreal.

Miss Marguerite and Miss Charlotte Magee, Senior Science graduates of 1919, sailed for England on Nov. 26th. They expect to visit relatives there for some time and then to travel in France and Italy returning to Canada next spring. We hope to see them at Macdonald for a few hours at least on their way home.

Miss Susie Crane of St. Johns, Newfoundland, senior science graduate of 1919, started her Pupil Dietitian Course in the Toronto General Hospital on Dec. 1st, and paid Macdonald a visit one Saturday afternoon on her way there.

Another science girl has just completed her first year's nurse's training, in the Montreal Western Hospital, this time it is Miss Helen Rowley, Homemaker, 1918.

The engagement has been announced of Miss Evelyn MacInnes of Montreal, to Mr. Bruce Reeford of the Irish Guards. Miss MacInnes took the Spring Science Short Course of '19 and is at present studying in Paris.

Mrs. H. M. Slade, formerly Miss Jeannette Van Duyn of Pretoria, South Africa, senior science graduate of 1911 has recently been appointed secretary of the Home Industries of South Africa.

Miss Marjorie Cochrane of Lennoxville, senior science graduate of 1919, expects to start her three months pupil Dietitian Course at the John's Hopkins Hospital, Baltimore, on Jan. 1st.

Miss Vera Eakin of Westmount, Homemaker '19 spent one Saturday afternoon at Macdonald when she was playing for the Old Girls in a Basket Ball match against our present team. Miss Eakin had just come home from a most enjoyable trip to New York with her parents.

Note:—We were very glad to get three replies to our request in the last issue of the magazine for items of interest about science Old Girls, and will always appreciate very greatly as many of these as possible.

Miss Enid Rogers of Charlottetown, P.E.I., Homemaker, '19, is at present taking a course of special studies in cookery, needlework, basketry and English.

Macdonald College Agricultural Alumni Association

THE General Secretary sincerely hopes that the activities of the graduates in agriculture are much greater than the amount of news here given would indicate. It is not the duty of the above mentioned scribe to manufacture news. It is his duty to attend to all matters pertaining to the receiving and dispensing of any cash which may accidentally fall into his grasping hands. He is also expected to keep a species of hotel register

upon which are recorded the names and addresses of all those who sacrificed their financial interests in life in order to make agriculture the bulwark of the nation. These and other minor duties are expected to irritate his peace of mind sufficiently without writing notes of interest for the magazine.

This latter task falls upon a species of scribe who is known as the class secretary. These men, all worthy and true, are expected to furnish a certain

amount of news for each issue, but they cannot forward news to the general secretary unless they receive it.

There has always been a certain amount of difficulty in connection with the publication of items of interest such as are expected to appear in these columns.

Let us all resolve to send in to our class secretaries any items which may be of interest, whether they be about ourselves or about some other graduate. In this way these columns can be made of much greater value to all its readers.

Class '14 Notes (G. Muir, Secretary)—

F. L. Drayton has received his discharge from the army, and is now on the strength of the Soldiers' Civil Re-establishment. He is sufficiently recovered to be back in his old position as Assistant in Plant Pathology in the Division of Botany at the Central Experimental Farm, Ottawa.

H. J. McL. Fiske, has also been demobilized and is now with the Lloyd Fruit Co., Ltd., of Regina, Sask., as Assistant Manager. He likes the West very much and has fallen in with a number of M.A.C. men, including "Doc." Robertson, J. H. Ross and Mr. F. W. Bates.

A wedding of considerable interest to many Macdonald students took place at Cookshire on June 27th when R. I. Hamilton, of Agriculture, 1914, was married to Miss Winifred Planche, of Teachers, 1914. The ceremony was celebrated in St. Peters Church, the principals being assisted by Miss Evangeline Planche, of Teachers, 1916, and George Halliday, of Agriculture, 1913. Owing to the participation of the lat-

ter gentleman in the happy ceremony we may rest assured that the knot was well tied, and that any little incidentals were properly attended to.

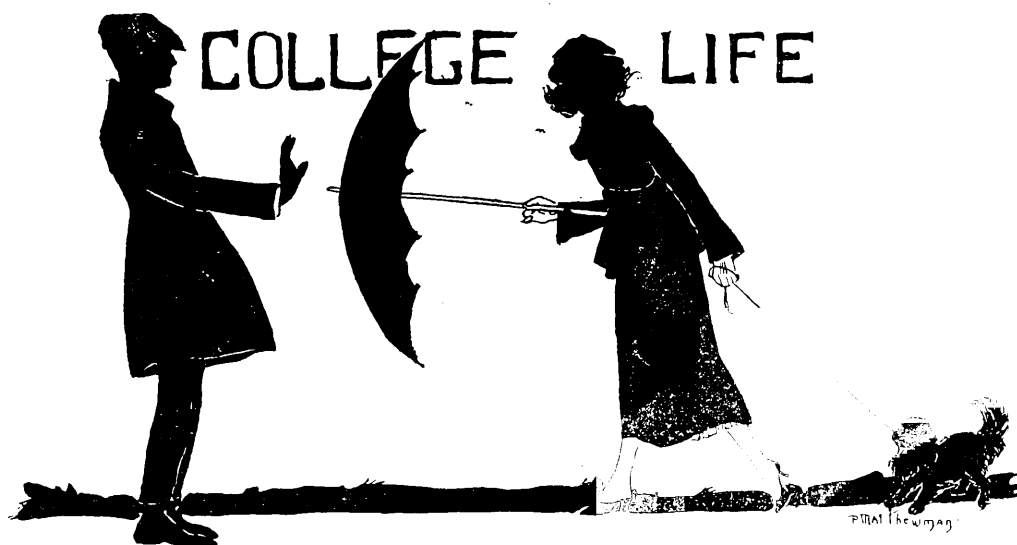
Our congratulations to Mr. and Mrs. C. H. Hodge, of Shawville, Que., on the arrival in their home in October last of a second daughter. We all hope little "Mary" is doing fine.

During the summer term, 1919, D. W. Hamilton held the position of Professor of Vocational Education in Iowa State College, Ames, Iowa. He is now Professor of Agricultural Education and Head of Teacher-Training Department in Agriculture in Washington State College, Pullman, Washington, U.S.A.

William Newton, familiarly known as "Bill," entered the University of California, College of Agriculture, Berkeley, Cal., U.S.A., for Post Graduate work on the first of October, 1919. Our worthy friend R. R. Huestis is keeping him company in the same institution for the same purpose. We do not know about "Bill," but we understand "Ralph" is married. Further particulars are lacking. Ralph will be working under quite a handicap, but nevertheless we feel quite satisfied that the boys will bring further honors to Class '14.

* * * *

Don't forget about your dues. If you haven't paid them for 1919-20, don't hesitate to send the general secretary the money. He always has the light at the window and you will never find your money turned away. The Association needs every dollar it can obtain in order to handle the business of the society successfully.



The Freshmen—Sophomore Debate

ON the evening of the 5th, a debate was held in the Assembly Hall under the auspices of the Literary and Debating Society. This debate, the first of a series for the Robertson Debating Shield was staged between the Freshmen and Sophomores. Considerable interest had been aroused with the result that the attendance was quite large and in fact the event was an unqualified success from start to finish.

The topic of the debate was "Resolved, that Labor Unions are a Disadvantage to Canadian Industries." The sophomores had the affirmative side and were represented by H. W. Brighton and P. H. Ashby while G. H. Bowen and W. Bushell supported the negative for the freshmen.

Mr. Brighton, the first speaker on the affirmative opened the debate. He contended that Labour Unions were disadvantageous to Canadian industries because they decreased production by limiting the amount of work done by employees and that they also decreased

efficiency through restricting the employment of apprentices and thus reducing the number of skilled workmen.

Mr. Bowen, leader of the negative, followed. After defining the term "Labour Unions" as excluding all such organizations as Radicalism, Socialism, and Bolshevism, he argued that Unions increased production through increasing the ambition and efficiency of workers by shortening the hours of labour.

Mr. Ashby, second speaker for the affirmative, continued the contest with a forceful speech with touches of humour throughout. He declared that Labor Unions by suppressing piece work were instrumental in decreasing production and in lowering the financial condition of the worker.

Mr. Bushell, the seconder for the negative, followed with an illuminating speech on the activities of the Union in promoting the welfare and interests of the employee.

Mr. Brighton then brought the argument to a close in his rebuttal in which he stated that some of his opponents' contentions did not bear on the question and that with reference to the last speaker's case, the laws of the country were sufficient protection for the interests of the working man.

Pending the judges' decision, several selections by the Sing Song Choir, and a vocal solo by Miss Hirner, were rendered and much enjoyed. Dr McFarlane, chairman of the Judging Committee (which comprised Dr. Mc-

entertainments organized by the College Lit. In the above contest the topic was a live one, the debaters were full of their subject and the attention of the audience was firmly held from start to finish. The display of Class Spirit is also stimulating and has a reflection in College Spirit. When a debate is on it means aroused interest in everybody, display of class spirit, and an enjoyable evening for all and because of this the other contests which follow will be anticipated with the keenest relish.



EXECUTIVE OF LITERARY AND DEBATING SOCIETY.

Farlane, Dr. Snell, and Dean Laird) then gave a short criticism of the debate and announced the decision which was in favour of the Sophomores by a score of 155 to 126. The main reason for the Sophs.' victory lay in the fact that their debaters backed up their arguments with facts while the Freshmen representatives dwelt too much on ideals.

These inter-class debates, judging by the interests they arouse take premier place in the variety of excellent

THE ELOCUTIONARY CONTEST.

If the high standard of talent displayed in the Annual Elocutionary Contest is an indication of what is likely to follow in future meetings of the Lit. Society, we are assured a successful year. The Contest was held on Friday evening, Nov. 28th, in the Assembly Hall with a large audience of students and staff. The event was characterized by the wide interest of the students and the revelation of unsuspected and excellent abilities in the competitors.

The president first called upon Miss Glauberson who gave, in splendid form, a rather touching poem entitled "Little Joe." The next number was "The Parson at the Hockey Game," which was very well given by Miss Bloomfield. Miss Currie following her, furnished us with a splendid rendering of "Mary, Queen of Scots." Miss Gifford then held our attention with "Briar Rose" and Miss Nicholson closed the girls contribution to the programme with Drummond's "When Albani Sang."

The boys then contributed their share of the programme. Mr. Ashby was first to appear and he gave a strong speech on a cooperative policy which would result in untold emolument to the College. Mr. Scharfe then delivered with deep impressiveness that master-piece of short speeches, "Lincoln's Speech at Gettysburg," "In Flanders' Field, The Call, The Pledge and The Fulfilment," was then delivered by Mr. Wiggins, and the final offering was made by Mr. Hockey with "Any Soldier to His Son" or "What Old Bill did in the Great War."

Dr. Brunt then gave the decisions of the judges and also a short criticism

of each selection. The awards were presented by Mrs. Ilsen in the following order: First, Miss Nicholson; Second, Miss Currie; Third, Miss Bloomfield, and for the boys: First, Mr. Scharfe; Second, Mr. Wiggins; and Third, Mr. Ashby.

MACDONALD COLLEGE CLUB CONCERT.

On the evening of Dec. 12th, Macdonald students had the privilege of being present at a concert given in the Assembly Hall by the "Junior Staff and Senior Students of McGill University Conservatorium of Music" and held under the auspices of the Macdonald College Club.

The programme included ten vocal and instrumental selections, and so excellent were these that numerous encores were requested during the course of the evening. The singing and playing was received with rapt attention throughout by the large audience which filled the Assembly Hall to overflowing. The concert was indeed a treat, and entertainments of a similar nature will be looked forward to with much enthusiasm.



THE ARMISTICE DANCE.

Armistice Day was brought to a perfect end at Macdonald, by the celebration, in the evening, of one of the most successful dances that have ever been held here. The happy combination of the right partner, with splendid music, on the excellent floor in the dim and dreamy atmosphere of the appropriately decorated gymnasium, together with delicious refreshments served at the proper time, resulted in the event being pronounced an overwhelming success by all those who attended.

A formal dance, Macdonald gave on
armistice day
To the strains of a "Jazz," we sure
did sway.
Here beauty and chivalry, reigned o'er
all there,
And youth met youth, and declared
her fair.
We danced until twelve and then sat
down to a repast
Of ice-cream-cake and sandwiches the
flavour still lasts.
But alas! 'twas too soon, that the dance
was ended
And we bade adieu, as our friends
homeward wended



ELEMENTARY TEACHERS, FALL 1919.

Celebrating the Finish of Exams

IT had been arranged on the night following exams, that a group of girls should gather together and drive away all thoughts of percentage and "deductive lessons" with cake, coffee and fudge. A room was borrowed for the occasion and the hostess and friends spent the whole afternoon stringing strips of green and yellow paper from corner to corner and trying to pull together enough pieces of furniture to make a table long enough for all the visitors. Then they managed to find paper doilies and blue-bird napkins for each of the twenty-five guests.

an elf and enough of them to satisfy a regiment: home-made fudge, and—Oh! "What fairy godmother provided piping hot coffee without breaking a single rule?"

All dainties soon disappeared, accompanied by the following hum of conversation: "What was the tabernacle?" "What plan did you make up?" "Oh! let's forget!" "Will you have the chocolate cake?" "My, what delicious icing!" "Have you done any Christmas shopping?" "Who got the first basket?"

Then the girls began to make autograph albums of their table napkins



"THERE ARE SMILES——"

These guests assembled just as the bell rang for the cessation of studies. They came from all corners of the residence, decked in pretty kimono's, and wearing pretty white boudoir caps. Each carried a glass, for they expected to get some good things with which to fill them.

When they entered the room a great view met their eyes. Cakes? Yes! Of every size and description. Sandwiches dainty enough to tickle the fancy of

and doilies and nothing was heard except an occasional rustling of paper.

Soon, however, the guests got tired of being grown up. They wanted to become young again, and hear the village school recite "Grey's Elegy," and in a short time their wish was granted. Then Lillian was asked to contribute her share of the evening's fun, and in a few minutes she had her audience in hearty laughter over the trials of Anne of Green Gables.

So interested were we in the trials of the green-haired maiden that we did not hear the signal for the ceasing of festivities. But the quietness of the corridors told us that we must forego further pleasure or become poorer by a half-dollar.

So the story was left unfinished, and we hastened off to re-live that happy hour in dreamland.—G. Thompson.

Once fair Viola gave a party:
My, but there was lots to eat!
Ice cream, chicken sandwiches,
Cake, and every kind of sweet!
Must have been a million goodies.
Anyway I counted eight,
Because each.....

....."Sound fades into silence!"

It's only because the poet (?) is
struck dumb with the memory of the

hostess as she appeared on that occasion. Evidently the parts of lectures on House Furnishings dealing with spot balance and geometric design had impressed Miss Viola more than the parts in colour harmony! On her head she wore a bow, tied in the front, which would have rivalled Cleopatra's headdress, or, better yet, a small girl's party sash! The merry sound of voices in song and jest made time take to its wings. Then everyone made room for Senoretta Margareta, the famous dancer, who gave us a fantastic Russian dance in a costume which, if it was not Russian, was near enough!

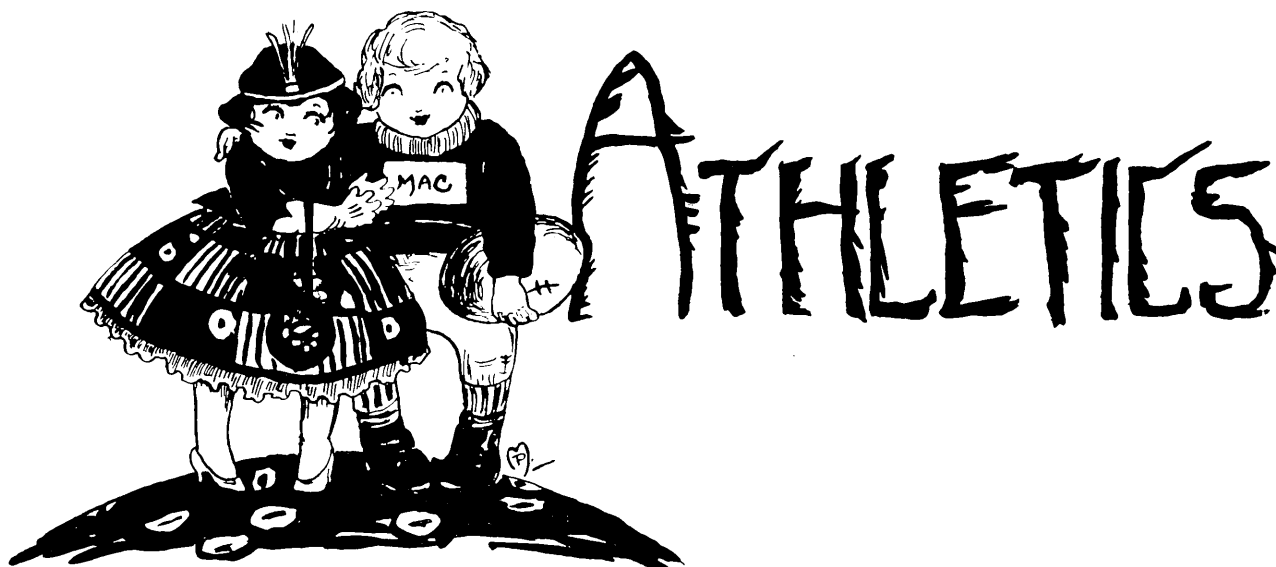
On with the feast! But, no! A familiar sound—that everlasting bell!

And so, "Good-night!"

G. W.



STUDENT'S COUNCIL.



DURING the fall term a keen interest has been taken in all forms of athletics, and in the last month or more our attention has been devoted to Indoor Baseball and Basketball chiefly. Every effort is being made to give everyone an opportunity to participate in the various games and to encourage them to turn out for the practices. One of the chief means of doing this is through the formation of what is known to us as Bush Leagues, in both basketball and baseball. This consists in making up teams of the men who desire to go in for each of the games and the competing of their teams against one another.

Another feature which should aid in adding enthusiasm in our baseball is the formation of what is known as the "Montreal City and District Baseball League," in which our team has a place. The teams in this league are: McGill, M.A.A.A., Macdonald, Royal Canadian Regiment, and Macdonald College Staff.

SOCCKER.

Seniors vs. Sophs.

On Wednesday afternoon, Nov. 12th, the second game of soccer was played for the Boving Cup between the Seniors and Sophomores. At the end of a half hour's playing darkness had taken possession of the field, and it was mutually agreed between the two teams that the game be completed a week from that date. When the two teams appeared on the field on the appointed day, they decided to play ten minutes in each direction.

The Sophomores got away with a good start, with the wind in their favor. The ball was very soon brought directly in front of the Seniors' goal, and an exciting few minutes followed. The only mistake made by the Sophs. at this time was to let the ball into the possession of Saunders and Skinner, two of the Seniors' forwards, who exhibited their speed in rushing it to the other end of the field.

During the first ten minutes the ball continued to travel from one end of the field to the other, neither side showing much superiority in their ability to handle it. So even was the play that no score was made during the first half nor the first five minutes of the second half. After that, however, the ball did not go far from the Sophs.' goal. The Seniors seemed to be gripped with a determination to finish off the game, and finally scored one goal. Three minutes later the whistle blew, ending

INTER-CLASS BASKETBALL.

Inter-class basketball opened on November 19th, between the Seniors and Sophomores, the latter winning 28—23. It was a game of much credit to both teams, for it was real basketball. During the first half the Sophs displayed the best combination and led 18—10. In the second half, however, the work of Pesner gave the Seniors a boost, and the half ended 23—23. Ten minutes overtime gave the Sophomores 5 points more, and the game.



ATHLETICS EXECUTIVE.

the game 1—0 in favor of the Seniors.

The list of players is as follows: Seniors—Ness, A. E. Matthews, W. D. Hay, Welsh, Jones, Dunsmore, S. Skinner, Hatch, A. Hay, Saunders, Ashton.

Sophomores—C. Skinner, Templeton, McGreer, Hammond, Scharfe, Crang, Winter, Smith, Ness, Shepherd, Donalds.

The final game for the Boving Cup has still to be played between Seniors and Freshmen, which in all probabilities will take place in the spring.

December 3rd witnessed another fast game of basketball between Sophomores and Freshmen and, with over-time, the Sophomores again won 26—22. It was of interest to the college in seeing such a good Freshman team on the floor. Their combination and speed deserves a mention and with better basket shooting they might have won the game. Templeton, Sutherland and Winters played a steady game for the Sophomores, while Amaron was the star for the Freshmen.

INDOOR BASEBALL.

On November 12th the college inter-class baseball series opened with Juniors vs. Sophomores, the Sophomores winning 16—8. The game proved very interesting, and was fairly even during most of the innings. Poor fielding, however, on the part of the Juniors in the last two innings, allowed the Sophs. to pile up the numerous runs as indicated in their final score.

The second game of the series was played on November 28th, between the Juniors and Freshmen. This game was an easy win for the Juniors, 34—18. Both sides, however, displayed loose fielding, and hits and runs were much in evidence. This is to be considered on the part of the Freshmen for many of their players had never played indoor baseball before. They have some good material in their year, and practice will no doubt bring out better results.

COLLEGE vs. STAFF.

The college baseball team played its first game of the season on Saturday, Dec. 15th, against the staff.

The game throughout was very close and exciting, and up till about the fifth inning the score was about even, each side making about one run each inning and finishing with a score of seven all. From then on for three innings neither side managed to pull in a run, and after that the college made a start. At their last bat they pulled in three runs, while the staff at their last bat finished up with two runs and two men on bases. This finished the game with a close score of ten to nine for the college.

College.		Staff.
Evans	Pitcher	Summerby
Ness J. E.	Catcher	Ness
Parker	Short-stop	Biggar
W. Hay	First-base	Ricker
Cooper	Third-base	Raymond
Dunsmore	Right-field	J. Moynan
Bradford	Left-field	J. H. McOuat



OUR RUGBY TEAM.

Girl's Athletics

Basketball.

This season has, at the time of writing, seen three games with outside teams. They were played against Trafalgar, Old Girls, and Westmount High School.

Trafalgar vs. Macdonald.

This game was a defeat for our team in the first play of the year, but we must wish the Trafalgar girls all good fortune, for they played a good game. The score when the whistle blew was 27—15. No discredit is due to the girls who made up the Mac team, considering the few opportunities for team practice they had had.

Forwards—M. Dower, H. Casselman.
Centres—M. Currie, D. Kent.
Guards—J. Laurie, J. Aylen.

OLD GIRLS' MATCH NOV. 22nd.

Who will say that Mac. doesn't mean anything to those who have left after seeing these Old Girls delight in getting back to the old college, the old game, and last, but not least, old friends?

None of the Old Girls had practiced basketball together since leaving, so that their splendid playing was a surprise to us all. Excitement ran high

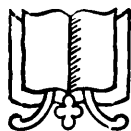
when the score was nearly even and old friends did their best at cheering and giving college yells. It was not without encouragement, however, that the Mac. team brought the score up to 28—14 in their favor.

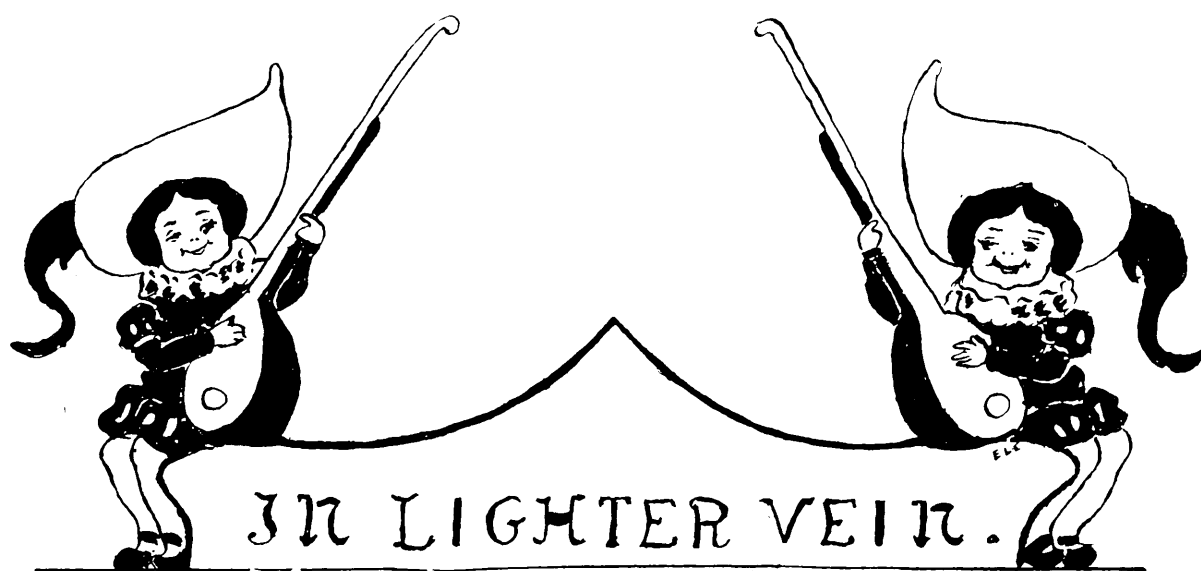
The players for the "Old Girls" were:—M. Maltby, H. Rosovitch, L. Darling, P. Abbot, V. Eakin and V. Anderson.

For Mac. the line up was as follows: Forwards, H. Casselman, M. Fowler; Centre, J. Aylen, D. Kent; Guard, H. Hall, V. Zeederberg.

The Westmount game was played on Saturday, 13th Dec., and resulted in a defeat of 19—7 for the second Mac. team and 12—5 for the first. In spite of our disappointment in the results of the two games we enjoyed playing Westmount and entertaining them at afternoon tea in the Reception Room before they had to leave.

1st Team.		2nd Team.
M. Fowler	Forward	M. Smyth
D. Kent	"	H. Kelly
V. Zeederberg	Guard	J. Laurie
H. Hall	"	D. LeDain
H. Casselman	Centre	M. Currie
J. Aylen	"	Y. Williams





At Mac there is a funny man,
Whose hunger is a crime.
He goes to town every week
To eat and take his time.

One always sees him at the Queen's
Consuming plates of fishes
Roast beef, potatoes, everything
And emptying piles of dishes.

To keep before him all this grub
Two waiters must be ready
For if he lets up for a sec.
No one can hold him steady.

And when at last he has to quit
For lack of time it seems
His train be catches full of joy
For in his room are beans.

Yes, tins and tins of beans
And as soon as he is able
He strives to open up a tin
And meanwhile chews the label.

Oh lad, you are a funny man
But we must all agree
If it wasn't for thy cheerfulness
A duller place 'twould be.

Chem. Prof.: I am going to give you
a test to day ——"

Sec. B.: "Oh, O O O O Oh!" (fear!)

Chem. Prof.: "While will prove to
you ——"

Sec. B.: "Ah! Ahhhhhh!" (relief)

* * * *

Thelma: How much is a life membership
to the magazine?

Billie: That depends on how long
you're going to live.

* * * *

O.C.B.: Do you take sugar?

T.Z.: No.

O.C.B.: You consider yourself sweet
enough then?

T.Z.: Yes! for all practical purposes.

* * * *

F.W. (Sunday morning): I feel like
doing something desperate today.

O.C.B.: Why don't you go fussing?

F.W.: Do you think I can go out
fussing alone?

* * * *

F.W.: I have been in the apartments
all week, but I am going to the dance
to-night.

O.C.B.: In other words you mean to
be A.W.L. from the apartments.

F.W.: What do you mean, A wall
flower?

*Une composition sur la vie en
Macdonald.*

Un jour, je me lève à sept heures et quart. A la demi-heure, je runnai manger les stairecasette mais, dans la salle à manger je marche parce que je saiverai Madame Ilsen! Après le grâce, je mangeai ma déjeuner. Je n'aime pas la porridge et la hashette, si, je ne me mangeai rien. Un belle gargon passai moi un tasse, sans un handle et plein de café. Je n'ai pas la spoonière si je stirrai ma café avec ma forkette. Eh très bien. Il (la belle gargon) passa moi un verre du eau mans dans une minute l'eau n'est pas là! Il est likedai sur la table. A un autre table je vois une autre fille flirterant avec ma beau. Je n'aime pas cela

A huit heures et demi je vais à la classe. L'instructeur dit à moi "Vous êtes parlant? Eh bien, leavoie la chambre! Bien! Attendez! Je n'aime pas cet instructeur.

A douze heures je goet pour ma dinêr. C'est la stew! les carottes, les boeufs, les cochons, les squasher et les potates aussi sont dans ca stew. S'est bien, ça stew! Je mange et je mange et je mange encore. Pour la dessert nous avons quelque chose queer. Je ne sais pas, c'est très funny. Mais c'est blanche et rouge.

Toute l'après-midi je studie. Ma leçons sont dur, quelquefois ma brain ne workie pas. A six heures la cloche sonne pour les soupers. Je mange la soupe du pois et la toast qui est laissa du déjeuner. Après souper je ne studa pas, mais, j'écris les lettres et les belles compositions. J'écris très bien toujours. A onze heures je dormi et je snorai profondément.

As Cliff was going out one eve,
His father questioned "whither?"
And Cliff not wishing to deceive,
With blushes answered "With her."

* * * *

At the Table.

She:—"Do you know a kiss is the cream of life?"

He: "Please pass the cream."

* * * *

Miss Smith: "How can you tell a young fowl from an old one?"

Junior Science: "By the teeth."

Miss S.: "But fowls haven't teeth."

J. S.: "Yes, but I have."

* * * *

Enid: "Pass the toast, please."

Bert: "Will you have some — honey?"

* * * *

If M-l-r-d sat on C-a-e-c's knee,
would it be Skinner Satin? (Sat on.)

* * * *

T'was in Mrs. Wright's when first they met,

One Romeo and Juliet.

T'was then he first fell into debt,
For Romeo'd what Juliet.

* * * *

Evans (at ball game): "Fowl."

Fresh Freshman: "Where are the feathers?"

Evans: "This is a picked team."

* * * *

He: "My life is like that of an elevator."

She: "How's that?"

He: "All up's and down's."

* * * *

Mr. Jull: What makes you boys so happy when you come over here?

Soph.: There are so many "chickens" about.

Mr. J.: I suppose then that your happiness is unbounded when in the girl's building.

You cannot blame the charming
 maids,
 For gazing at that Armitage.
 For know you not Dame Fashion says
 That tango now is all the rage?

* * * *

She: "We made soap in Chem. to-day."

He: "Then use it."

* * * *

Notes on Exam. Answers

Definitions:—

Joint—"Some place."

Ligament—What you rub on for rheumatism.

Catilage—What you shoot out of a gun.

Tendon—Carries coal behind the engine.

Cannon-bone—Projectile used in the war.

* * * *

Some Prof's. are Cross!

"Change your seat! You talk too much!"

I had only drawn my breath,
 I wonder if I sigh,
 Would it mean my death?

"Leave the class, " Oh awful doom,
 and all because I laughed,
 I wonder what my fate would be,
 If I winked at the class.

* * * *

Teacher: "Johnny, what is a cube?"

Johnny: "A cube is a solid surrounded by six equal squares."

Teacher: "Right! Willie what is a cone?"

Willie: "A cone? Why—a—cone—is . . er . . Ah yes, miss, a cone is a funnel stuffed plumb full of ice-cream."

* * * *

He: "You are a distracting element."

She (indignantly): "I belong to the models."

Hints to Teachers.

Bright Student: "What would you do if you told a boy to stand up and he refused?"

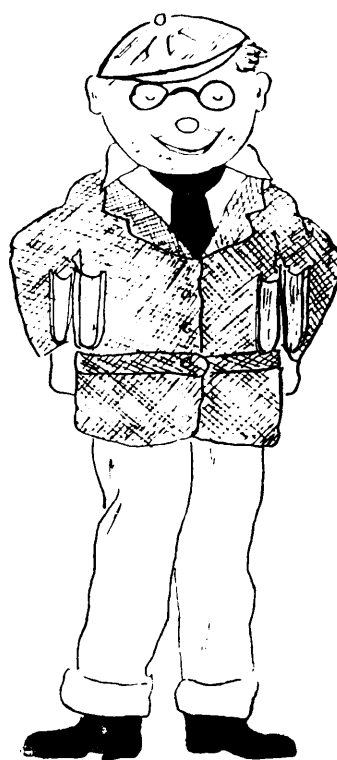
Prof.: "Call in the janitor."

B.S.: "What would you do in a rural school?"

Prof.: "What would you do?"

B.S.: "Call in one of the neighbours I suppose."

* * * *



WHY GIRLS LEAVE HOME AND
 COME TO MACDONALD.

* * * *

There was a young lady named Maud
 Whose life was a horrible fraud
 She would not eat at all
 In the main dining hall
 But up in her room

Oh Gawd!

Another young lady named Eva
 Could never be a deceiver,
 She ate more than all
 In the main dining hall
 And up in her room—

Well, we leave her.